SKYWAYS

Win! Over $10,000.00 in Ercoupes page 54

FLYING SPORTSMAN

JUNE 1947 25¢

"Technique of Slips...Front & Side" page 26

Come what may, you're all set with this Lear MVHT-6 remotely controlled transmitter. Any of six frequencies are at your finger tips—two medium frequencies and four VHF. Plenty of power, too, with 14 watts on VHF and 50 watts on the medium frequencies.

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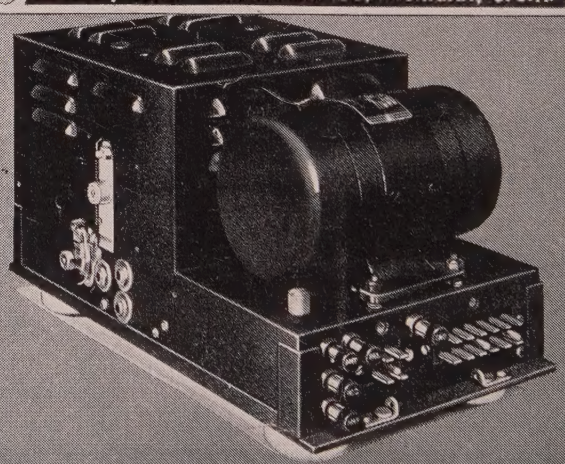
VHF plus MEDIUM FREQUENCIES in one COMPACT TRANSMITTER

•

The Lear MVHT-6



Quick facts about the Lear MVHT-6

- *Combines medium and very high frequencies*
- *Covers 6210 kc., 3105 kc., 121.5 mc., 122.1 mc., 122.5 mc., 122.9 mc.*
- *Usable power, 12-14 watts VHF, 48-55 watts on medium frequencies*
- *Weight 30 pounds complete*
- *14 volt or 28 volt units available*

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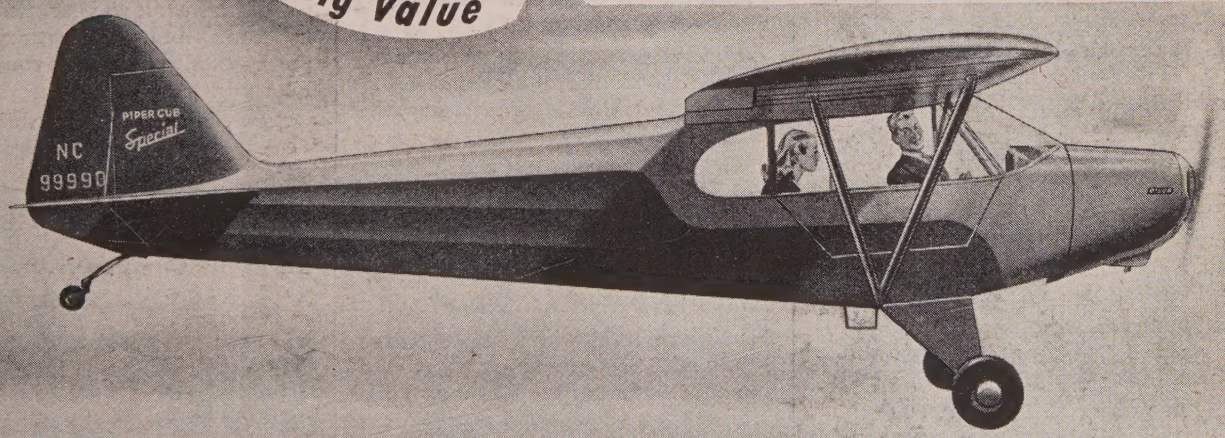

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PIPER

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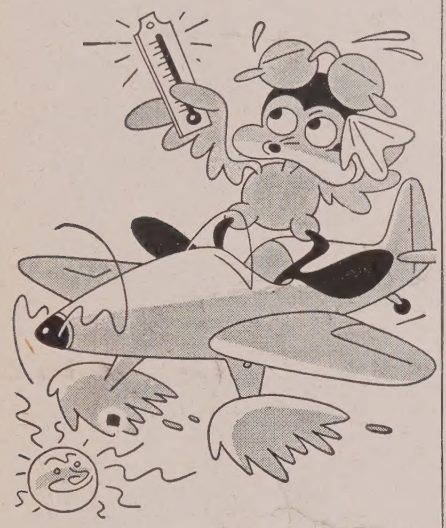
The Birdmen's Perch

By *Major Al Williams*, ALIAS, "TATTERED WING TIPS,"
Gulf Aviation Products Manager, Gulf Bldg., Pittsburgh 30, Pa.



They're ruining our nerves!

That's what!

Every time we get to know enough about something to qualify as an expert, they switch signals on us.

We've spent a lot of time in an airplane learning that the higher you go, the colder it gets.

Then someone says, no! . . . that's only true up to the tropopause . . . beyond 36,000 feet or so, the temperature remains constant. So we rearrange our ideas and presently the knowledge that the temperature above 36,000 is a constant -67° is practically second nature to us.

Then guess what happens . . .

They discover—with V2's—that upper air temperatures are all over the lot, reaching an estimated 212° at 400,000 feet!

That's hot!

What's more, it's confusing!

We wish they'd get these things straightened out for once and all. So we'd know what kind of clothes to wear the next time we contemplate filing a flight plan with an estimated altitude of 400,000 feet on it!

Our favorite radio guy has just announced a new auto-pilot.

Yeah, there've *been* auto-pilots . . .

But this one weighs 29 lbs.! That's exclusive of gyros, of course, but that's still mighty light.

He must have worked as hard at getting rid of nonessential weight as we do at getting rid of nonessential hydrocarbons, when we refine Gulfpride Oil.

Mind you, we don't just stop at refining the fine crudes that become Gulfpride . . . we throw in an extra step, the Alchlor Process.

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LITTLE KNOWN FACTS DEPT.

Here we go again, with a commission as Perch Pilot (bottom rung) to each of the contributors of the following Little Known Facts About Well Known Planes:

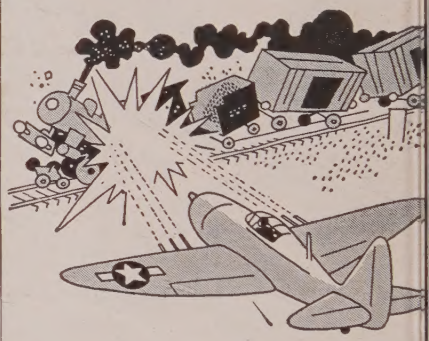
From Ken Medley, P.O. Box 285, Carbondale, Pa.:

"The maximum allowable RPM dr when checking mags on a DC-4 ty plane means a loss of hp equal to tot hp of most light planes!"

William Pipkin, Jr., Wayne, Mich qualifies with:

"From D-day to VE-day in the ET P-47's knocked off 86,000 RR cars, 9,0 locomotives, 68,000 motor transport 6,000 armored vehicles, and 60,000 hor drawn vehicles!"

See how easy it is?



Just send your Little Known Fact, *w proof*, to that address on the top of t page. If it's used, you get a scrumptiou handsome, beautiful certificate whi proves to one and all that you're a Per Pilot (br).

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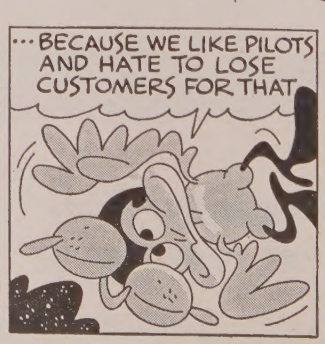

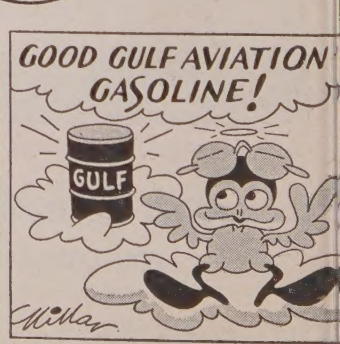

SKYWAYS

Incorporating Air News

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There are two Skyways: English and Spanish

JUNE 1947 VOLUME 6, NUMBER 6

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AIR YOUR VIEWS

For Instructors Only

Gentlemen:

I have heard of an organization called the Flight Instructors Guild, and would like to get in touch with them. Can you give me their address?

NELSON BAKER

Struthers, Ohio

The address is: U. S. Flight Instructor's Guild, P. O. Box 1145, Lakeland, Florida. This group now is sponsoring a bill, H. R. 1625, urging recognition of former instructors in the Enlisted Reserve Corps during the past year.—ED.

•

Off His Chest

Dear Sirs:

I read in bed—terrible habit—among other things your magazine. Your article in the High Wing *vs.* the Low Wing leaves me wondering if writers have anything to do except play. This leads to the question of the place of flying in the field of serious business. The impression to be gained from a majority of articles is that the lightplane of 100 hp. and less is merely a toy for kids to play with. Examination of the planes and of the ads seems to indicate the same type of thinking on the part of many people. The automotive industry went through the same thing and left a story that could be used to advantage by those who have the most to gain from flying.

A common difficulty of flying today is getting to town after you land, or getting to the airfield in the first place. Many fields are fine for the big planes, but the bread-and-butter items in flying, as in the automotive field, will be the smaller units. Terminal points that make it easy for a farmer to fly in to town will do much to encourage the use of planes. Business and professional men also appreciate this factor. Downtown landing fields immediately brings up the question of flying over thickly populated areas, but the area immediately above railroad tracks and express highways and rivers provides a "natural" route that should be no more objectionable than the railroads themselves.

As to the planes, the prices seem to start at around $2,000. In the lowest brackets the speed is about that of the average car. In anything more than a slight breeze, you can often walk home quicker. For training, that is not too bad, but for transportation, the 85 hp. and over jobs seem far more practical. For a dub, the high wing gets my vote, as it keeps more of the ground in sight. Few lightplanes are equipped with either sensitive altimeter or rate-of-climb indicator. In flying different ships, this is the most confusing thing I have encountered. For us old Ducks, the wheel, as compared to the stick, seems less exacting on the fellow using it. Many plane ads mention the fine interior finish. If less attention was paid to the looks and more to windows that would stay closed, the boys that fly would be more appreciative. Lifting muddy shoes over a fine piece of mohair does not improve the cushion, nor help the temper. In comparison with cars, the prices of planes are too high, with little to justify the difference.

After all this, you may well ask why I bother with flying. I frequently wish to travel to a town 170 air miles away. Round trip flying time is three hours and 10 minutes. Round trip driving time is eight hours at least, hitting 75 and 80 mph. whenever possible. Taxi time to and from this airport is 25 minutes. Thus flying saves half the driving time, without the feeling of having been run through a treadmill. Closer home, much business can be taken care of in a matter of hours rather than days, with savings to my customers and myself.

With all its draw-backs and inconveniences, the use of a lightplane as a business asset is worth the cost and pays its own way. My Cessna is not for sale.

J. C. MOORE

Des Moines, Iowa

Well put, Mr. Moore, and we liked hearing from you. Don't wonder your Cessna is not for sale.—ED.

•

On The Other Hand . . .

Dear Sir:

The article by Alice Rogers Hager, about the Air Reserve, in the March SKYWAYS, aroused my ire. The press seems to visit only those fields that are ideal.

If your writer would like to see the other side of a fouled-up situation, she should visit our little establishment in this area. Many of us presented ourselves for physical exams and the paper work required for "checking in," during the first week in December. I made a personal check the end of February to see what was causing the delay, and was quite unhappy at what I found.

They were just then starting through the December list, which meant that besides the three months already passed, I would have to wait another two or three before I would ever be called for flying.

I know it isn't the fault of the field that all of this is taking place, but it further embitters us against the whole set-up. Naturally, we appreciate the opportunity to keep our flying skill from getting stale. I haven't been off the ground since October, 1946, and another three months' lay-off isn't going to help me a bit.

L. H. SCOTT

Glendale, California.

It is unfortunate that all fields can't set up good operations at the same time. Let us hope that before long your field, too, will be one of the "ideal" ones.—ED.

•

For Air Education

Gentlemen:

I was indeed very pleased to read your editorial "Cruel and Unusual Punishment" in the April issue of SKYWAYS. I only hope it will be given more publicity, since most of the people reading SKYWAYS are not the ones who need such a shot in the arm. During meal hours at the University dining hall I continually have to defend air transportation against the wild stories of a very thoroughly frightened group of potential customers. Here at Dalhousie we have students from all over Canada and the U. S., and I have yet to speak with one who is willing to fly. Perhaps the facts given in your editorial will help me sell a few tickets for TCA!

RICHARD H. W. HILL

Halifax, Nova Scotia

It is just such loyal supporters as you, Reader Hill, who will finally shoo the fear out of the public mind.—ED.

•

Take-Off At Altitude

Dear Sirs:

I disagree with the statement made by the authors of "Di'bert" in the February issue—that any plane going off from a field 6,000 feet high takes only an 18 per cent longer run.

This figure must have been arrived at by some mathematical computations ignoring both the severe loss in engine power and the fact that in a low-powered plane the last few miles per hour required to get into the air are the ones that consume the large quantities of runway. Probably the 3 per cent per thousand feet just represents the extra air speed needed to take-off.

LOUIS CHRISTEN

San Francisco, California

Reader Christen's comments smack of experience. We believe the author of "Dilbert" had no intention of limiting *the additional take-off run to 18 per cent, but rather was trying to emphasize that the additional take-off run must be* at least *18 per cent, plus whatever more the requirements of the engine and weather indicate.*—ED.

•

Help!

Gentlemen:

Will you kindly give me the address of the following organization which was formed last summer for the purpose of furthering aviation in the southland? It is called "Air Force of the Confederacy" or "Air Force of the Confederate States of America."

LEWIS O. BARTON.

Clifton, Texas

We have tried every source we know to locate this group, and finally decided to appeal to our readers. If anyone knows anything about the organization, please let us know!—ED.

•

Biggest Yet

Dear Sir:

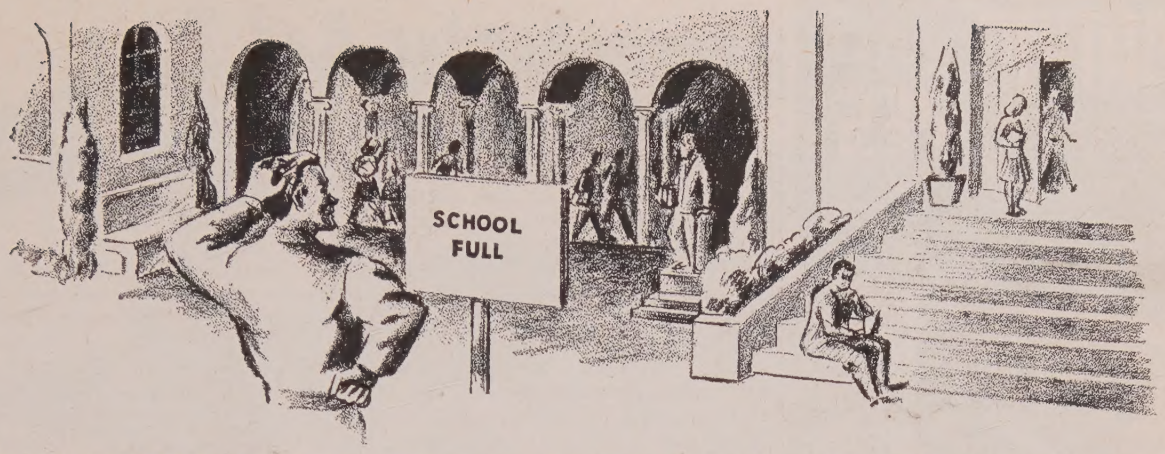
We would put all your other "big" pilots to shame with our Mr. B. F. Reed, notable citizen, Vice-President of the Bank of Smyrna, Georgia, who for some time has been flying his own plane, a Fairchild 24, at our local field. His weight? 330 pounds!

JOHN DUNN

Marietta, Georgia

That sounds like the last word on top weight. Mind if we ask another question? How many passengers does Mr. Reed carry?—ED.

B. F. Reed (left), at 330 lbs., leads field



A FRANK DISCUSSION OF TODAY'S CRITICAL AVIATION TRAINING SITUATION

The aviation training situation today is a little short of desperate. Nobody's to blame. There are just too many applicants for too few schools. As a result of this unfortunate condition, many deserving young men—particularly veterans eager to accept the benefits under the G. I. Bill of Rights—must postpone indefinitely their aviation training.

The young man who starts his training NOW will win aviation's highest rewards

It is vitally important that a young man start his aviation training now. With many veterans being graduated from colleges, universities and technical schools during the next few years, it means that every day he delays, the competition becomes greater. The sooner he is established in aviation, the better are his chances to obtain aviation's top positions and highest salaries. For it is only natural that these choice positions will go to the well-trained young men *who get in first.* If you start your training now, you will be in a responsible position in aviation at a time when your friends are barely starting their education.

Unusual situation at California Flyers provides opportunity for immediate enrollment

The recent re-opening of famous California Flyers School of Aeronautics—after completing important wartime assignments for the Army Air Forces—temporarily relieves the critical aviation training shortage. Now it is possible for a *limited number* of young men to commence their aviation training immediately.

Time, of course, is all-important. This unusual situation can't last much longer. Soon, California Flyers—like other major aviation schools—will be enrolled to capacity. Young men anxious to take advantage of this welcome opportunity must act fast.

California Flyers' practical career courses in aviation mechanics are fully approved

California Flyers offers practical, industry-approved career courses in Master Aircraft and Engine Mechanics, Aircraft Mechanics and Aircraft Engine Mechanics. These courses are fully approved under the G. I. Bill of Rights and have been extended the highest possible rating by the Civil Aeronautics Administration.

Approved for Veterans
Here is the solution

California Flyers offers every advantage to the aviation mechanics trainee

California Flyers is one of the oldest and most respected aeronautical institutions in America. It is situated adjacent to the world-famous Los Angeles Airport, main western terminus of American Airlines, Pan-American World Airways, Trans-World Airline, United Air Lines and Western Air Lines and testing ground for some of America's most famous aircraft. Not only does this ideal location offer the advantages of studying in the world's aviation capital, but it provides the student with year 'round, healthful, outdoor recreation.

Its buildings are modern, its shops complete and its faculty industry trained and recommended. A unique training method—*Participation-Group Instruction*—places emphasis on small classes and individual instruction, permits the ambitious student to advance faster.

And to you with previous mechanics training, California Flyers extends scholastic credit as you demonstrate your ability to make progress throughout your training and to the limits allowed by the C.A.A. Yes, California Flyers offers all this PLUS *Immediate Enrollment.*

Clip this coupon today

The unusual training opportunities offered by California Flyers today must be acted upon immediately. Phone, write or air mail your application *now.* Even if you do not plan to enter for some time, write for complete information and make your reservation as soon as possible.

Write for brochure

Write today for free illustrated brochure describing courses, curricula and opportunities at California Flyers.

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Border Red Tape

AN EDITORIAL

THAT beautiful illusion about freedom of the air has received some particularly hard knocks when private flyers have tried to take pleasure trips in their planes across the borders of the United States to neighboring countries in the Hemisphere. There seems to be endless red tape to be cut and the most innocent citizen feels that he is an object of suspicion by the time he has filled out endless forms, gotten an okay on his honesty from his police department and trudged through miles of Consular offices, paying out his hard-earned dollars for visas.

With the summer vacation season looming just over the horizon, SKYWAYS decided to investigate the current situation to see if there was any relief in sight for those personal-plane owners who are developing bad cases of wanderlust. A report from one indignant pilot who had flown into Canada and been treated with the greatest courtesy by the Customs' people of that northern sportsman's paradise, only to be held up and charged a whacking fee by U. S. officials when he re-entered this country, started the editorial ball rolling. The State Department, incidentally, reported that no such charge should have been made. Maybe, the gentleman can get his money back if he writes to Washington about it.

There are valiant efforts being made at the present time to clear up the snafu which makes flying into the other Americas something of a hurdle race. The National Aeronautic Association, American representative of the revived FAI (Federation Aeronautique Internationale) says that there is now an FAI officer stationed at Montreal, working with ICAO on technical facilities for private flyers as well as the airlines, and that plans are well under way for re-introduction of the carnet system in Europe. Another officer is on his way to South America, where he hopes to be able to get the governments to approve the system for use in this part of the world. The carnet is a simple card, issued by the FAI stating that its holder is cleared as a reputable person in good standing with his own government and needs no other passport.

A major effort to cut red tape is being made by an 11-man sub-committee of the Air Coordinating Committee. Headed by its chairman, William A. M. Burden, Assistant Secretary of Commerce, it is visiting all ports of entry of the U. S., surveying conditions, interviewing local government officials, airport industry and airline representatives, non-scheduled operators and private flyers to determine exactly what needs to be done. On the spot recommendations are made where possible and new policy will be recommended to ACC for discussion with the necessary agencies when the survey is complete. ACC will press for fast action.

Too frequently, the State Department says, a lot of the difficulties are to be found in bad political conditions in our own local government management of airports. If you live in or near a port of entry, here is an opportunity for your own flying organization to clean house at home.

For the moment, however, until the new and simpler regulations go into effect, the State Dept. has compiled complete advice for those who wish to tour this summer. A written request to the Aviation Division, State Department, Washington, D. C., will bring this detailed information.

Certain points can be included here. In all cases where countries require prior permission for pilots to fly into or over their terrain, it is well to apply several weeks in advance, accompanying your request with the following facts: purpose of flight; type aircraft; registry number; your name, address and nationality as owner; description of radio transmitters and receivers, with call letters and transmitting frequencies; names, addresses and citizenship of crew or passengers; proposed itinerary with dates of expected arrival and departure at each. State will transmit your request through diplomatic channels, if you desire, and do it by cable or wireless, if you pay the bill, in the case of Brazil, Chile, Colombia, Costa Rica, Ecuador, Bahamas, British Guiana, Haiti, Honduras, Netherlands West Indies and Venezuela. No prior permission is required by the Dominican Republic, French West Indies, French Guiana, British Honduras, British West Indies, Netherlands Guiana and Panama, but their diplomatic offices should be informed that you are coming and the same information filed as indicated above. Canada requires no passport or visa.

The State Dept. also warns that it is advisable to do everything possible to be sure you may use the desired airports and that servicing and refueling facilities will be available. You can save yourself a lot of headaches if you take the trouble to prepare in advance according to the known conditions, etc.

Just as a final check, communicate with the Bureau of the Customs, the Treasury Department, Immigration and Naturalization Service and the Department of Justice in Washington for their regulations before taking off merrily into the "free" air of the Hemisphere.

Activation of the Chicago Conference Agreement on right of transit came into being in certain countries south of the border on April 4th, but 10 still have not signed. Also, the infamous "broker" system of getting clearances from Mexican government officials still holds and silver must be passed in order to get them. Did you really think you wanted to take a carefree aerial vacation this summer in the romantic lands to the south? You can do it, if you haven't exhausted both your temper and your pocketbook before all the red tape and the visas are ploughed through. You'll applaud, as we do, the efforts of the ACC in trying to simplify the procedures, both domestic and foreign, but don't expect them to bear fruit too soon. The ways of governments are devious and slow as molasses, and local rights are only too often jealously guarded by jobholders.

In the meantime, in the light of the many delightful vacation spots in Canada, the Caribbean and south of the border which can be readily visited by air, let each of us do what he can to help remove this unnecessary hindrance to air travel.

J. FRED HENRY

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The 65 horsepower "Silvaire" Standard is as thrifty as it is beautiful. In the air you can cruise at 105 miles an hour, getting more than 23 miles per gallon of fuel . . . and on the ground Silvaire maintenance cost is lower than that of any other lightplane made. That gleaming metal skin is more than a thing of beauty—it's your lifetime protection against the elements. It means freedom from the expense and worry of fabric deterioration, so common with less modern planes—no recovering of weather-weary wings or control surfaces. And it means that you have more plane to trade, when you may later want a newer model.

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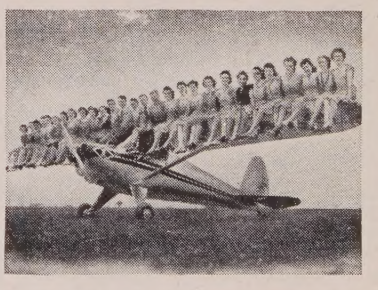

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FIRST IN *ALL-METAL* PERSONAL PLANES

WASHINGTON NEWS

BY ALICE ROGERS HAGER

IN AN effort to give personal-plane pilots a real break when they fly cross country, the CAA has developed a new type of airport marker, the Segmented Circle. Low in cost and maintenance, easy to operate, it speeds up field operations, increases safety and should make flying more enjoyable.

Consisting of a series of light, movable panels, set above ground level to shed rain and snow, the marker may be rearranged at a moment's notice to indicate any change in field conditions. It identifies the airport, indicates runways, location of wind cones and landing direction indicators, right- or left-hand traffic patterns, off-runway conditions, emergency landing only and closed field signals. Any available material can be used in its construction, so long as it is weatherproof and can be lashed down to prevent blowing.

The Circles are easily visible from the air and since they can be located at the edge of the field, are not a hazard to traffic. CAA hopes they will be put to use all over the country, assuring uniform marking and signals, which would solve many problems for the private pilot. Field operators will be helped in faster handling of traffic.

CAA's Airport Engineering Service has a limited number of copies of a booklet giving detailed instruction for construction and use, available for operators. Wide publicity is to be given the new markers so that flyers will become thoroughly familiar with their meaning. CAA has asked for constructive criticism of the system from a considerable number of experts, and with the exception of a few suggested changes in pattern, the markers have been given wide approval. Jerry Lederer, Safety Engineer for Aviation Insurance Underwriters and former CAB Safety Bureau head, has stated they should materially increase safety of lightplane flying. For illustration, see page 69.

Ownership of private planes has increased in the U. S. from 12,952 in 1939 to 84,184 at the end of 1946. Buying has leveled off from its last year's postwar peak but it is slowly climbing again—the principal increase being in four- and five-place ships. The jump in ownership in 1946 alone was 122 per cent. Increase in number of pilots has been from 100,800 in 1941 to 400,000 in 1946. In spite of the down curve in airline travel during the past winter, passenger totals have jumped 900 per cent since prewar days. The total for 1946 was 13,300,000, with 20,000,000 estimated for this year.

Washington, D.C., set an aviation record in 1946 with 180,000 plane movements as against 120,000 for trains.

CAA Notes: 20 per cent reduction of fees for recording aircraft and aircraft liens, which became effective May 1st, was good news handed plane owners recently. Congress ordered CAA to make aviation pay its own way, but CAA, in instituting the system promised that if six months' study of costs showed charges too high, they would be cut. There is still no reduction in fees for flying, ground and mechanic schools or repair stations and parachute lofts but no charge is made for airmen's certificates of competency.

CAA study shows young Americans with little money are the ones who fly, rather than older, more affluent citizens. Medical records of 10,000 pilots examined during '45 and '46 exclusive of military services, showed highest age group flying between 16 and 35. Almost no Americans fly after age 65.—CAA is training Philippine students in air traffic control under the Philippine Rehabilitation Act, with special stress on mastery of conversational and Technical English and American customs.—Indianapolis Experimental Station is working on better use of radar scanning screens in control towers, through hookup with facsimile broadcasting equipment to give permanent record of "pips" seen on screen. Makes work easier for operator and reduces confusion when many planes are in the air.—Non scheduled and private flying problems are being discussed in a series of seven state-wide forums, which began March 26 and will end August 13. Dates are: March 26, Daytona Beach; Apr 9, Birmingham, Ala.; April 23, La Grange Ga.; May 21, Jackson, Miss.; June 18, Cha lotte, N. C.; July 16, Columbia, S. C.; an Nashville, Tenn., August 13. Following wi be the Second Regional Conference for th southeast in Atlanta, Sept. 16-18. Confer ences are open to interested flyers an operators.

Add CAA notes—New frequencies, whic make it possible for private pilots to us Army and Navy facilities in an emergency have been granted through cooperation o military and CAA. Direct two-way com munication between air and radar controller on ground is on VHF 140.58 megacycles GCA two-way communications will be o 3.1175 megacycles, relayed to private flyer by local military control tower using fr quency between 200 and 400 kilocycles. A radio equipped planes can receive this fr quency and can talk to GCA operators o standard frequencies of 3.105 or 6.210 meg cycles.

The American Legion showed its intentio of "going to town" on aviation, promotin its theme that "Air power is peace power by gathering together more than 200 aviatio leaders of its own in Indianapolis late March. In its sessions, it moved to impl ment its program on a national basis, em phasizing that 1) preeminence in air pow is essential to national security; 2) Ame ican leadership in the air is essential to fu fillment of our international obligations; an 3) strong American air power guarante maintenance of world peace. Legion dec cated itself to work for public consciousne of vital necessity of air power, comprehe sive research and development, adequate i dustrial preparedness, healthy air transpo tation system, strong and progressive aircra industry, and maintenance of best Air For in world. In view of present Congression trend to destruction of all these objectiv through blind, misdirected economy in t wrong places, the Legion will need to exe all its political strength to save what litt is left. U. S. is now in third place in wor air race, with Russia first and England, spite of economic difficulties, second. Y two years ago, we held the lead by such margin that it seemed as if none could cat us up. It's a sorry spectacle, friends, f which we are liable to pay a price far wor than Pearl Harbor. What are *you* doi about your Congressman? As General Spaa said recently, "National air defense progra is expensive but still the cheapest procural for the American tax dollar. The evoluti of air power, as the evolution of man in unstable world, permits only the survi of the fittest."

University of Maryland is now offering full credit course in Airline Administratio with airline ex-executives giving the lectur This should be welcome news to the ma young men who've written us of their i terest in airline careers.

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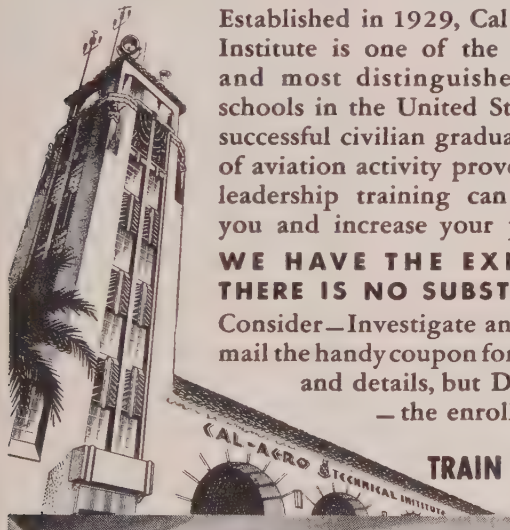

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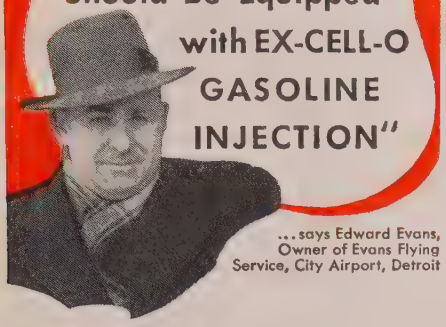

...says Edward Evans, Owner of Evans Flying Service, City Airport, Detroit

Quoting Mr. Evans . . . "Here are 3 big reasons why I'm completely sold on Ex-Cell-O Gasoline Injection for small personal planes: (1) It brings greater safety to private flying . . . completely eliminates danger of manifold icing and engine stalling during glide or idle. *I don't have to worry during student solos.* (2) It improves engine performance, increases power . . . makes flying easier. (3) It reduces fuel consumption . . . gives equal distribution to all cylinders and provides positive control over fuel-air mixture. Yes, I'm convinced that every private plane should be equipped with Ex-Cell-O Gasoline Injection."

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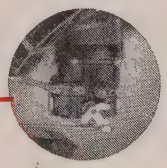

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PROP WASH

Aero Oddities

Stop that Plane! A Naval aircraft delivery pilot, flying a ship from Columbus, Ohio, to San Diego, put his plane on automatic pilot when his radio went out; climbed out on wing then into rear cockpit to fix radio. On return trip, he slipped, fell off wing, landed by parachute next to auxiliary field. (*B. Manheim, Cleveland, Ohio.*)

Paging Mother Sills. Lightplane Pilot William Turk took a friend for his first plane ride, laughingly pointed to throttle and said, "If you get sick, just open the door." Friend did. Result—forced landing in farmer's wheat field. (*H. Hafer, Riverbank, Calif.*)

Buzz Boys. Instructor Simonds and Student White flying over Kent, Washington, spotted a roof fire, buzzed the house until its occupants came out. Flyers cut engine, shouted alarm, saved house from serious damage. (*Edw. White, Seattle, Washington.*)

Horse Betters. Pilots Bjerks and Oldewirtel, Holland, Minnesota, went fox hunting from the air, spotted a horse on its back in a furrow in farmer's field. Boys landed, unsuccessfully tried to help horse up, then took off again for more help. Flew over farmer's house, throttled back, yelled the SOS, then flew back to field. Farmer dashed over, three finally righted the animal. (*H. Oldewirtel, Holland, Minn.*)

O'er Picket Fence. Owner of picketed electrical plant overcame effects of striking union teamsters by bringing raw materials into the plant via helicopter. (*Mrs. A. C. Learmonth, El Paso, Tex.*)

Aerial Delivery. A dude ranch near Reno, Nevada, goes all out for the rustic way of living—with modern limitations. There is no telephone on the place and the nearest one is at an airfield a few miles away. Arrangements have been made to deliver urgent messages, te grams, etc., via air to the ranch. private pilot flies over, buzzes t house, then, when an attendant con out, he drops the message in specia made leather bags. (*E. A. Patche Reno, Nevada.*)

Alleyoop, Alleyoop, Alleyoop. Colu bus, Georgia, flight instructor went u stairs for acrobatic practice. At 4,0 feet proceeded to demonstrate his f repertoire of aerobatic maneuve Proud of his skill, he landed, then d covered he'd lost his billfold containi $150 during one of his aerial stun (*V. J. McCarty, Troy, Alabama.*)

Lunch Stop. Student Pilot Wilb piling up solo hours for private tick became hungry, spotted roadside r taurant, landed in hay field close Few minutes later, irate farmer manding to know whose "flyin' m chine" was in his field. "Don't m yer landing there so much," the farm stormed, "but first thing you know lot of you little guys will be com in . . . and then those big passen ships'll come next . . . so git that c traption out of there!" He got. (*Featherstonaugh, Duanesburg, N.*

Air Mailman. U. S. Postman Cliff Saubak learned to fly last win bought himself a T-craft, now uses to deliver mail to 23 rural boxes. Ma 19 landings to do it, never walks m than six rods to any mail box. (*Hegland, Miles City, Montana.*)

Att'n Readers

PROP WASH is your column. If have any news-note oddities pertaining aviation, send them to SKYWAYS, *Box 444 Madison Avenue, New York 22, N Five dollars will be paid the sender of "oddity" printed on Prop Wash page. In c of duplication, the Prop Wash contribu first received at the office of the editor be honored. Contributions cannot be retu unless accompanied by stamped addre envelope. The decision of the editors is*

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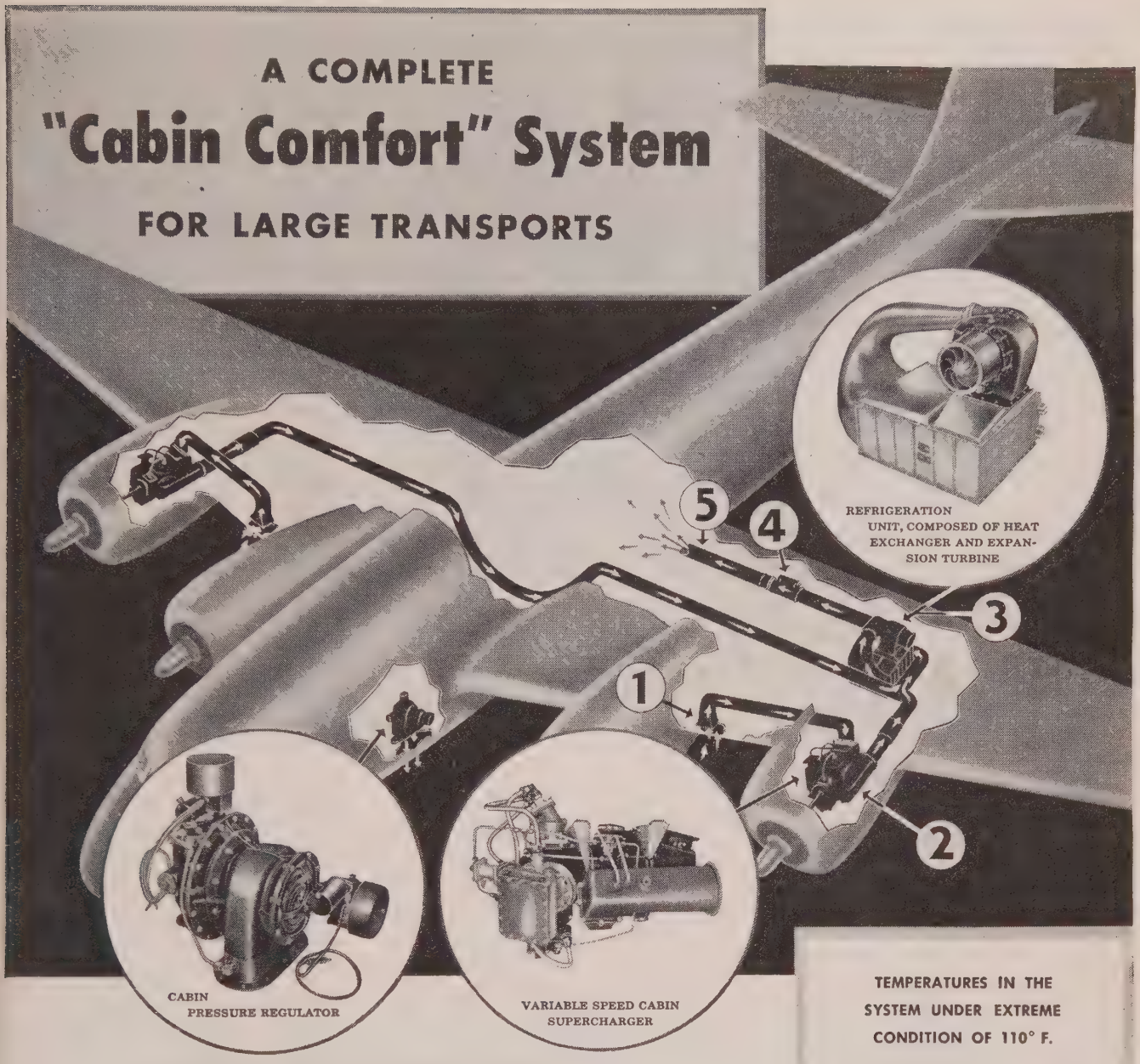

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(System pictured above has been simplified for clearness.)

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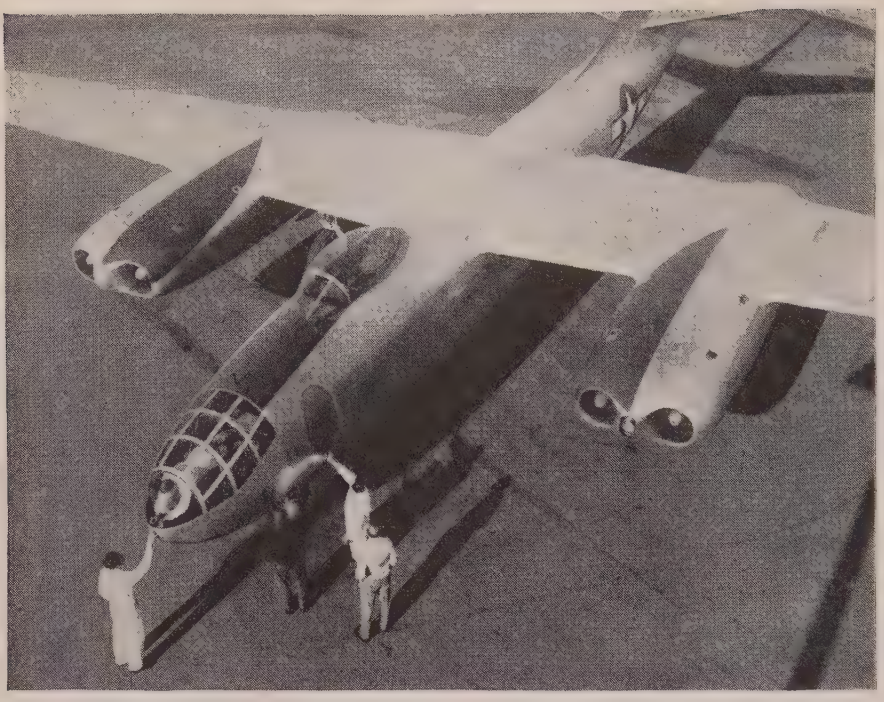

FIRST FOUR-JET bomber to fly in the United States is Air Force's North American XB-45

MILITARY AVIATION

Speed Record Attempts

Both the Air Force and the Navy are grooming several entries for the forthcoming attempts to break the international speed record at Muroc Lake (Calif.). The figure of 616 mph (991 kilometers) was achieved in September, 1946, by Great Britain's Gloster *Star Meteor*. In March, 1947, this plane flew from London to Paris in 21 minutes, a rate of 618.4 mph. Last fall, in an attempt to break the British record, the Republic P-84 *Thunderjet* attained an *unofficial* record of 619 mph, and a new official American record of 611 mph under FAI (Federation Aeronautique Internationale) rules. A special version of the *Shooting Star* (P-80R) also had a crack at the record at that time, and Lockheed engineers have made further improvements in this model since.

The two models of the *Star Meteor* (EE 549 and EE 550) were specially modified for the speed record attempt last summer, including a reinforced canopy which would not melt at the high speeds, and were fitted with special versions of the Rolls-Royce *Derwent V* containing a superior heat-resistant alloy (Nimonic 190, instead of the usual 180) which permitted higher rpm and a thrust of 4,200 pounds instead of 3,500. American engineers hope to raise the normal 4,000-pounds thrust of the J-33 (in the P-80R) and the J-35 (in the P-84) to between 4,500 and 4,800 pounds of thrust. Present tests indicate a possible new record of around 630 mph (1,014 kpm, Mach. number 0.83). Such research aircraft as Air Force's rocket-powered Bell XS-1 and Navy's jet-powered Douglas 558 *Skystreak* will provide competition in an entirely different category, both in this country and with similar experimental models in Great Britain that are now being test-flown.

Jet News . . .

Apart from developments by General Electric and Westinghouse and production by Allison of GE-developed turbojets, the American public has been starved for definite news of U.S. developments in the aircraft gas turbine field. The recent unveiling of the Northrop-Hendy *Turbodyne* affords a glimpse of what has been going on with varying degrees of secrecy at Wright Aeronautical, Pratt & Whitney, Lockheed-Menasco, Packard, Allis-Chalmers and elsewhere. Northrop got into the gas turbine picture early (1939), though roughly five years later than Whittle in England and some of the German engineers. After five years of preliminary research and testing of important components the project outgrew Northrop facilities, and a tie-up with the Joshua Hendy Iron Works of Sunnyvale (Calif.), experienced in steam turbine construction, was effected. Arthur J. Phelan, former head of engine research at Chrysler, became chief engineer for Northrop-Hendy. Associated with him was a team of specialists in aero-dynamics, metallurgy. stress, vibration and combustion problems.

Heart of the Northrop-Hendy *Turbodyne* is the main shaft, at one end of which is the 17-stage compressor, with the 4-stage turbine at the other end. The compressor contains 17 rows, totaling over 2,000 blades, including the "stator" or stationary blades which straighten up the air as it flows through the *Turbodyne* at high velocity. These blades whip up the air by degrees until it is expelled under high pressure and mixed with fuel in the combustion chambers near the center of the engine. Each of the blades is a minute but perfect air-foil, similar to that of an airplane's wing, turned out by an ingenious machine which uses an elaborate eccentric guide to mill the blades out of ba stock, better than forgings or castings.

The combustion takes place continuousl much like the burning of a blowtorch. l force is directed against the turbine blade which tap off the tremendous energy ge erated by the burning of the compressed a and fuel, whirling the shaft at better tha 10,000 rpm. Combustion efficiency approach 90 per cent, and the compression ratio about seven to one, similar to a high-co pression automobile engine.

Operating span of the *Turbodyne* betwe overhauls is estimated to be 500 hours at 14 degrees (F). A slight reduction in this te perature reduces the power somewhat b would greatly increase the life of the engi Eight *Turbodynes* in the big Northrop flyi wing would cut down weight considerab and add substantially to the total power. small group of top experts which is condu ing nuclear energy research at Northrop making a special study of the adaptation atomic energy to the *Turbodyne* power pla for use with aircraft, and especially wi guided missiles.

Martin on British Jets

Glenn L. Martin told the Aviation Su committee of the U.S. Senate Interstate a Foreign Commerce Committee that the months or more head start the British ha over the U.S. in the development of aircr gas turbines may be felt by American aircr manufacturers and airline operators three four years hence. "A lot of people in t country are not going to like it if some ti about 1950 they see jet-propelled (Britis transport planes shuttling between New Y and San Francisco at a speed of 500 mph better, while our own planes will be unal to do much better than 300 mph," he stat "but it looks like it is too late now to p vent this from happening." Stating that much could be done right now to shorten gap between American and British jet-engi development, he urged that pressure exerted to speed U.S. development so as close this gap in the future. "Lack of ordination and direction has held us bac he said, "and it is a Government probl to straighten matters out."

Mr. Martin had particularly in mind proposed tie-up whereby passengers of 40 per cent Government-owned British C monwealth Pacific Airways would land 'Frisco, be brought non-stop across the co try in fast, high-altitude British Overs Airways Corp. jet airliners, and then on the UK and Europe. This operation m very well miss the 1950 deadline mention but many observers close to developments Britain are convinced that they will h long-range jet airliners within five ye with operational tests within a year or t

Theseus propeller-turbine test

Early in 1947 the Bristol *Theseus* turbop completed a successful type-test run of hours, two hours longer than required for standard test for piston engines. Since e spring two of the *Theseus* turboprops h been undergoing flight tests as two of power-plants of the four-motor Avro *Lin* heavy bomber, late-war successor to the *caster*. This will provide similar experie to that gained from the use of the *N Lancastrian* (2 *Nenes*, 2 *Merlins*) since summer. (*Continued on page*

NORTHROP
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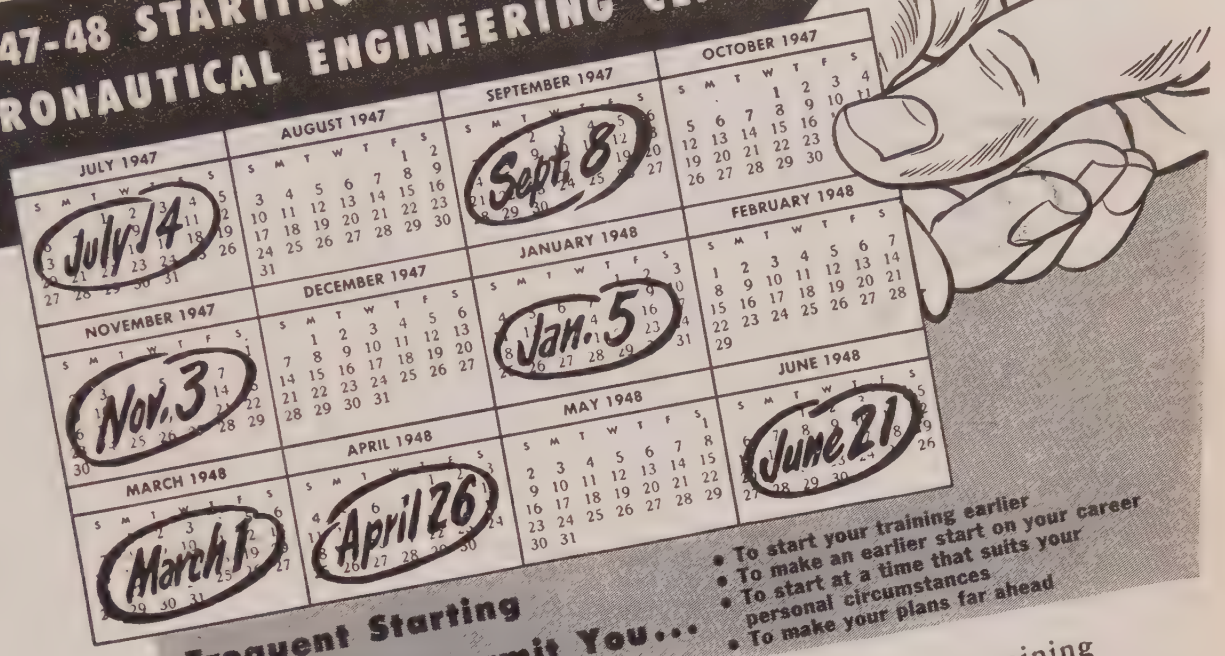
ANNOUNCES

1947-48 STARTING DATES OF AERONAUTICAL ENGINEERING CLASSES



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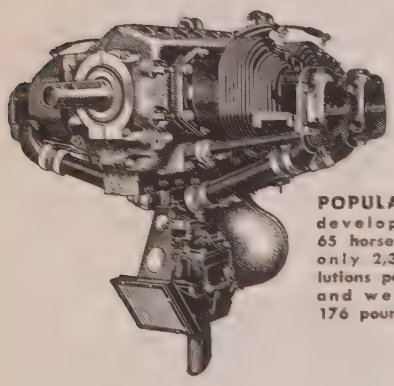
CONTINENTAL RED SEAL POWER

Fliers' First Choice



POPULAR A65 develops its full 65 horsepower at only 2,300 revolutions per minute and weighs but 176 pounds.

Fliers' overwhelming preference for planes with Continental power is a tribute to Continental leadership in the qualities which fliers demand.

It reflects an ability, proved over the years, to build into aircraft engines the combination of power, economy and all-round stamina on which satisfaction with any plane so largely depends. Choose an airplane with Continental power. Take advantage of the performance leadership that has made Continental aircraft engines ***fliers' first choice.***

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FERRYING for FUN . . . .

CUB CARAVAN crossed flat country of Indiana en route from Lock Haven (Pa.) to Montebello Airport near L. A.

FERRYING PLANES not only saves money for the operator but it gives pilots chance to practice navigation, etc.

and PROFIT, too!

If you want an aerial vacation but are low on funds, try a ferry trip

By DON DOWNIE

THERE'S one thing about flying that all pilots seem to agree on—it costs too much! That being the case, why not fly on your vacation this summer and let someone else pay the bills? If you're a licensed pilot, private or better, and can navigate, you can easily arrange a flying trip and not have it cost you a cent—and this by merely becoming a ferry pilot.

Next time you're at the airport, check in with the operator from whom you've been renting planes. He will know whether or not your flying is up to par. Ask him if he has any ferry trips in the offing; any new planes on order from the factory or used trades awaiting delivery. If the first operator doesn't have any trips coming up, try others around the field. Any energetic licensed pilot who wants to take the time away from work should have little difficulty in promoting a ferry trip.

Interstate freight rates on knocked-down planes in railroad freight cars are expensive and the delivery takes weeks instead of hours. The average flyaway delivery will save the airport operator more than enough time and money to cover the wear and tear on the plane in delivery.

Gas and oil, insurance, communications and pilot's transportation and living expenses average 11¢ per delivery mile, according to the Cleland and Merell Ferrying Service of El Monte, California. They handled over 500 planes last year, and charged 11¢ for 65-hp planes and 12¢ for 85-hp planes.

Ferrying during summer months is both more economical and comfortable than winter flying. On

COMPASS on the Cub was swung (above) just prior to take-off. Second night out, they Ron'd at St. Louis

FACILITIES at many airports were sadly lacking. Typical of the poor fields is this "lounge room" (lower left). Down Texas way, airports are fewer and farther between, so the refueling was done on highways

ANOTHER REFUELING point was Rodeo Radio, New Mexico. "P-EP" sign means "Phoenix-El Paso" airway

EL PASO, TEXAS stop was made at the municipal field. Service at these fields was not as good as at C1's

a trip from Lock Haven, Pennsylvania, last winter, a Commercial pilot flying for Cleland and Merell took 15 days to deliver a *Cub Cruiser* to Los Angeles, Calif. He encountered ice and snow on airport runways at the factory, at Terra Haute, Indiana, at Durant, Oklahoma; Hobbs, New Mexico, and El Paso, Texas. During summer months the same trip seldom takes over four days.

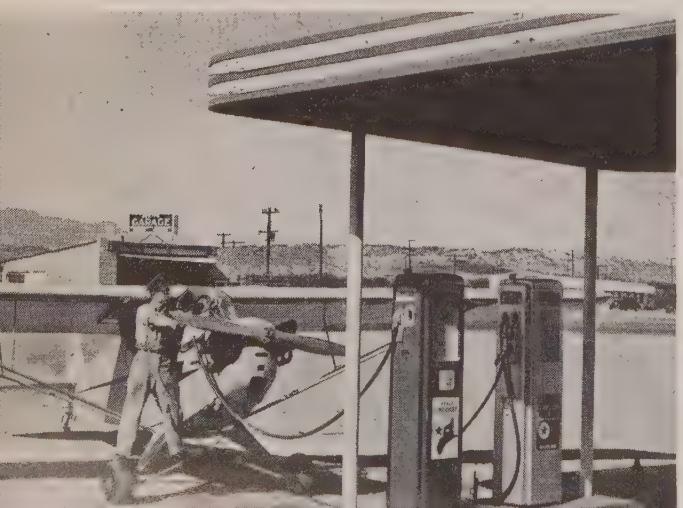
Ferrying can be a lot of fun, not only to the new pilot but to an old hand as well. To the novice it presents an opportunity to see the country and to put into practice the navigation, radio technique and weather judgment he has learned for his license. For the experienced pilot, it's a chance to get away from the grind of airport instructing, passenger hopping, and flying crowded traffic patterns over the same familiar country. A ferry flight is a swell vacation so long as the pilot doesn't try to fly over six hours a day.

When dealers and distributors are expecting a large number of planes, they frequently send one commercial pilot and a group of private pilots to the factory. The old-timer acts as Flight Commander and the newcomers follow his judgment both on weather conditions and navigation. A trip of this type is the world's best indoctrination in travel by air for the up-and-coming pilot.

Even the longest of flights in the slowest planes are interesting. Last summer the author, accompanied by faithful Wife and camera, ferried a *Cub* to California from the factory in Pennsylvania. The five-day trip was a grand vacation. We saw more of these United States in that 3,000-mile puddle-jumping trip than the average airline passenger, flying mile-high altitudes and methodical schedules, sees in a lifetime.

Our total cost for gas and oil was $41.35 and the air time was exactly 40 hours. Two other California pilots flew back with us, cutting down on cab fares into towns during overnight stops and making the trip seem like an extended Sunday morning breakfast flight. Flying in a caravan is much more fun than going solo—and safer, too! Three planes can safely cut corners over lonely deserts of the West where a solo forced landing might mean starvation. There is always another plane to pull in alongside and fly loose formation with should the pilot (*Continued on page 48*)

AUTO GAS was again put in the *Cub's* tank at Benson, Arizona. Out here gas attendants are used to planes



OVER THE TOP and home again was what these mountains meant to the Downies. Los Angeles next stop

Breakfast Flight

SCENE of the largest flight of non-military aircraft on the Pacific Coast, the Palm Springs (California) airport last month played host to over 1,000 visiting planes on the annual breakfast flight sponsored by the Los Angeles Junior Chamber of Commerce.

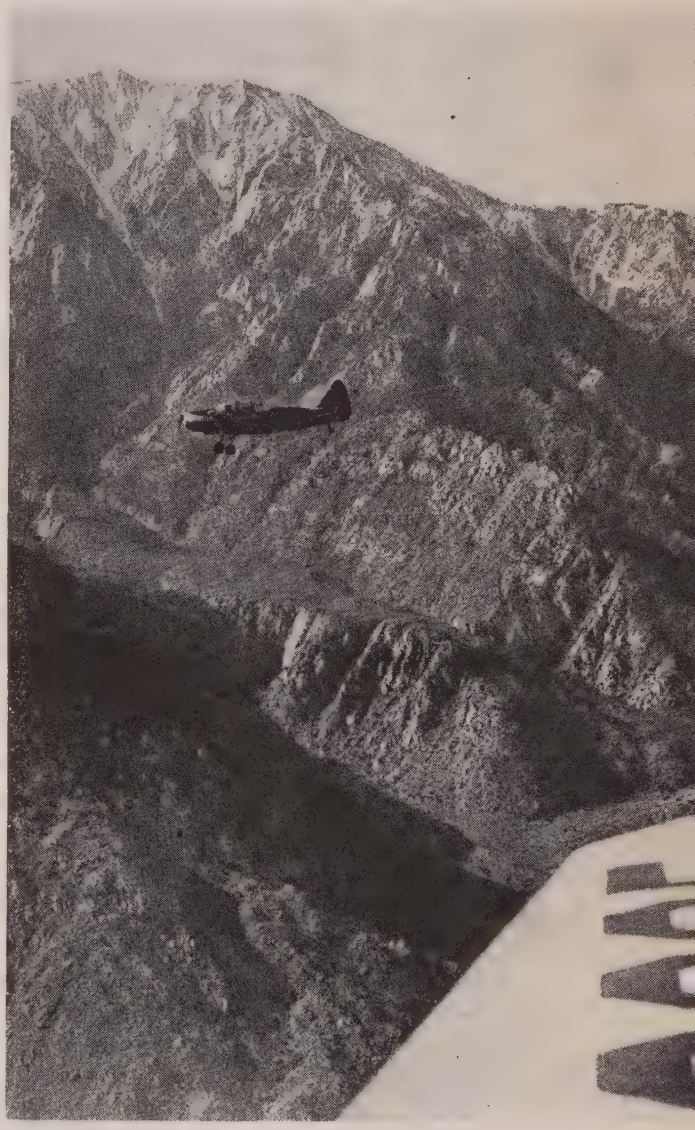
At 10 A.M., CAA men, frantically running light guns in the control tower, had counted 693 planes. Then they gave up the job. Mr. I. W. Beeman of the Los Angeles Junior Chamber of Commerce estimated that over 1,000 planes attended.

It's a cinch that every pilot who did participate will remember and discuss the affair for months to come. From a pilot's standpoint, the flight was risky. Only heads-up flying from all participants averted serious accidents. With such a mass of aircraft, all cruising at different speeds, the traffic pattern was a rat-race. Many aircraft were nearly "blown over" as they made the mistake of landing behind powerful Navy fighters and airline transports.

Planes registered from Vancouver, B. C., San Francisco, Sacramento, Reno, Yuma, Phoenix, Tucson and San Diego. One DC-3, tiring of futile attempts to land on the crowded field, flew on to Lake Havasu on the Colorado River north of Parker Dam, and its passengers held an impromptu picnic on the huge abandoned Army emergency field there. The Monrovia Airport near Los Angeles sent its planes on a breakfast flight to Santa Barbara rather than mix with the heavy Palm Springs traffic.

Next year the Los Angeles Jr. C. of C. plans their mass flight either to Santa Barbara or Ensenada, Mexico. The Santa Barbara field has double runways that could safely handle a large group of aircraft. The trip may be expanded into a two-day affair if overnight facilities can be arranged.

Yes, out West they do things in a big way!



BREAKFAST FLIGHTERS came into the field by the hundreds. At final counting there were about 1,000 planes. Despite "crowd", there were no serious mishaps

PALM SPRINGS AIRPORT, playing host to L. A. Junior Chamber of Commerce flight was jammed to capacity

NEW SHIPS such as *Bonanza* attracted lots of attention on part of airmen

PILOTS Wightman and Michaels brought two midget motorcycles with them in the Stinson

CHOW LINE proved adage that airmen are a hungry lot. Many chose to go into town for "brunch"

FILM STAR Jane Withers drew numbers from a hat, then gave lucky ones gifts. All got computers

LEG ART has its place in aviation, too, and this get-together proved no exception. Here gals pose for pictures

NAVAL RESERVE flagmen helped park the "breakfast flight" planes. Plane being flagged in is a Porterfield

FESTIVITIES over, planes headed for take-off positions and the flight home

MID-AFTERNOON the Palm Springs field was fast becoming a lonesome place with visitors taking off

WAGONWHEEL AIRPORT at Tucson, Arizona, offers visiting airmen just about everything—guest cottages, restaurant service and maintenance, and car to town

AIRCRAFT SERVICE is provided by Skyriders, Inc., headed by Orlando and Duane Miller (*lower left*). Guest service is under supervision of the Mitterlings

Desert Hospitality

By TAMARA ANDREEVA

"YOU might check my engine, it's running pretty rough. Give me a room with a Southern exposure, I love lots of sun! Send my clothes out to be pressed right away—I have a luncheon engagement in town tomorrow noon. And, oh, yes, send two cups of black coffee and a chicken sandwich up to my room."

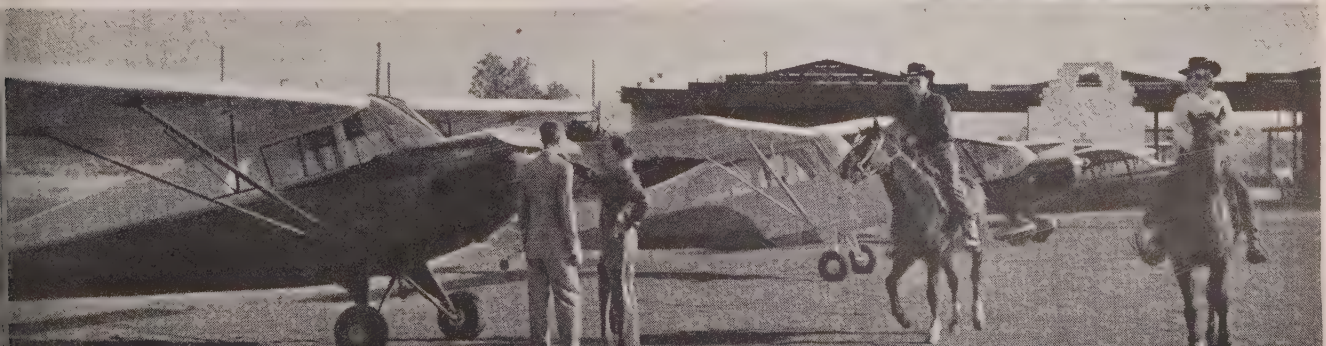
Such a request to an airport operator anywhere might sound cuckoo—anywhere, that is, except Tucson's Wagonwheel airport.

It all started a few months before V-J Day when four friends, all in different branches of the Service, met at a spot near an airport for a friendly beer. They were Orlando J. Miller, Army gunnery instructor; his brother Duane, Troop Carrier Command pilot; Jim Golden, Navy air mechanic; and Eugene Steinheimer, former CAP pilot. Each was complaining about the inadequacies of the private airport set-up. ". . . airports were too far from town . . . for a busy person arriving just for a few hours, most of the valuable time was wasted in transportation . . . few airports had food worth eating, and again, if one wanted a decent dinner, a taxi had to be summoned and a tedious trip taken into town . . . a traveler, beat up from a long sky ride, cursed his fate, and again took a lengthy trek somewhere inside the city limits to find lodging . . ."

That deplorable situation should and would be corrected, these boys decided. After the war they would find a spot for an ideal airport to refute all the usual complaints. It would have full hotel accommodations—individual cottages where a weary pilot could find privacy as well as comfort. There would be a good restaurant right in the airport building. The airport station wagon would be made available to guests for their individual errands and for the needs of the airport itself.

While the four friends were thus daydreaming, Eben Mitterling, a pilot from Sycamore, Illinois, decided he would like to take a plane trip to Arizona, both for his health and for a few weeks' vacation. He, Mrs. Mitterling, their son and daughter-in-law, flew out. After the first month out West, they decided that Sycamore would not see them again. In a few weeks they moved—lock, stock, and barrel—to Tucson. Since Mitterling was a private pilot and well acquainted with the inadequacies of existing airports, especially with their lack of hotel accommodations, he proceeded to buy a piece of land, just on the outskirts of Tucson, and make it into an airport flanked by rows of pretty white cottages—the air traveler's haven, a real "Skytel." It was not (*Continued on page 50*)

WAGONWHEEL has proved to be gathering place for flying enthusiasts whether they come by car, plane, horse. Swimming pool is new attraction



Technique of Slips . . . Front & Side

Properly done, a front or side slip can be a time saver and safety factor

By LIB and WIL BIGLER

A PILOT'S aerial repertoire would be sadly incomplete without complete mastery of the slip and a knowledge of its uses. Properly used, the slip may be a time saver and a safety factor. The real temptation, for the student and the experienced pilot alike, is to abuse the maneuver by using it to cover for poor judgment or bad planning.

A slip is a coordinated maneuver resulting in accelerated descent without increase in airspeed. In its various forms it is invaluable in landing short over obstructions, planning a safe forced landing or, in emergency, simply to get down quickly.

A few general rules apply to all slips. They are executed power-off. The plane's nose should never be lower nor the airspeed greater than a normal glide. Airspeed readings are inaccurate in a slip, as the pitot tube is not pointed directly into the relative wind. Prolonged slipping will cause uneven cooling of the cylinders and resulting roughness or loss of power. Especially near the ground, slips should be made into the wind whenever possible; downwind slips are subject to the same illusion of increased speed that makes downwind turns hazardous. Some airspeed is always gained in the recovery, as the braking effect of the fuselage is lost; and smooth coordination must be used to prevent excessive acceleration. Most important, perhaps, while the slip is a maneuver of great utility, it should be used to augment and *not* to substitute for good judgment and planning.

GLIDE PATH from station point indicates increased resistance of plane in slip compared to its normal glide

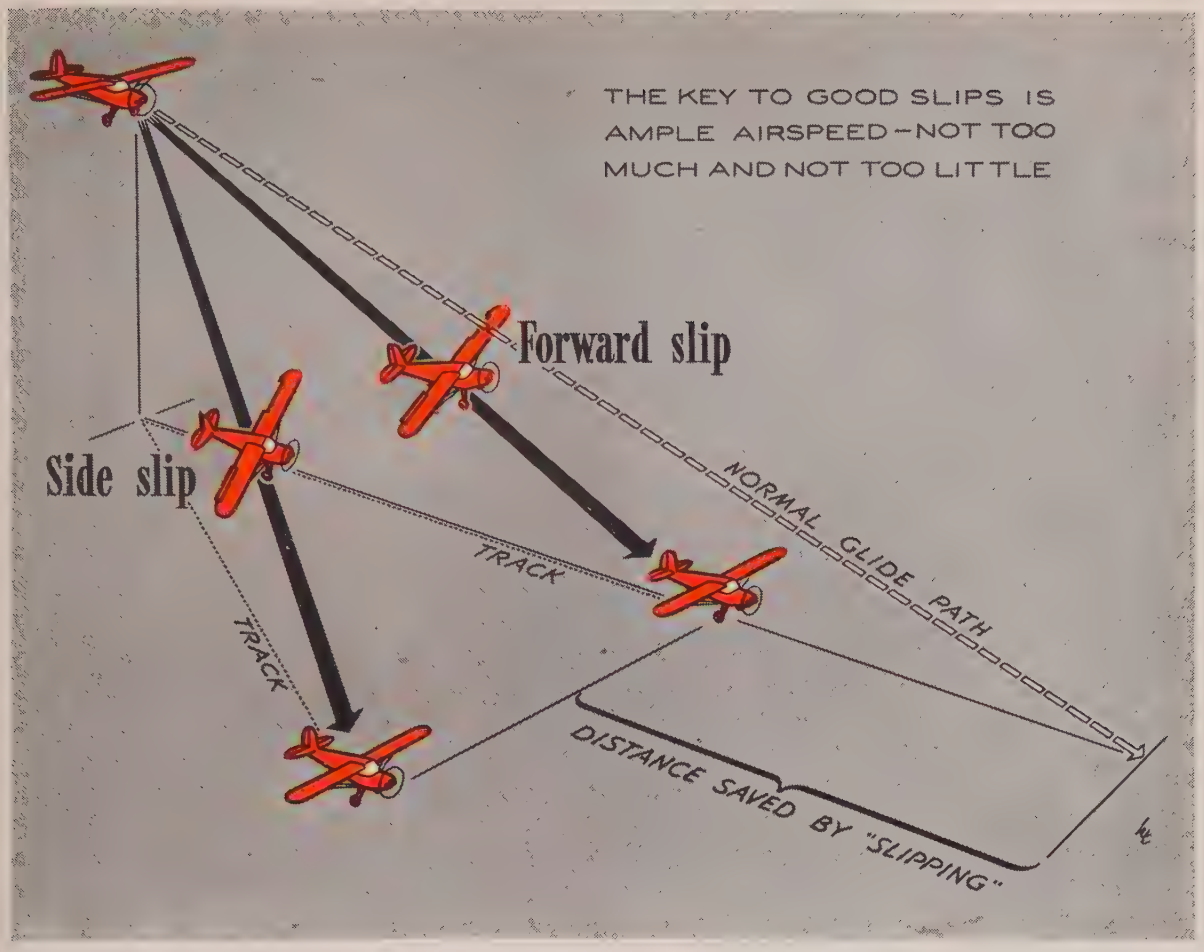
The forward slip is the most gentle and entails no change in flight direction; thus it is the logical slip to use on the final approach to a landing. Especially in adverse wind conditions or in planning a forced landing, it is wise to make a high approach and dissipate excess altitude by slipping when it is obvious that the field is within reach.

From a normal glide, the pilot raises the nose slightly and, leading a little with rudder, swings the ship's nose to the right or left of the flight path and lowers the opposite wing with aileron, about 20° or 25°. (If he is making a crosswind approach, he will lower the windward wing.) Rudder and aileron pressures are coordinated so as to maintain a straight flight path over the ground. This is the attitude which produces a forward slip; control pressures are maintained until the recovery. The rudder tends to raise the nose, which must be counteracted with the elevators; however the nose should remain slightly higher than in a glide to keep the airspeed equal to or lower than in a glide.

It is to be noted here again that airspeed readings are not accurate in a slip because the pitot tube is not pointed directly into the relative wind. The pilot should be able to judge his airspeed with fair accuracy by seat-of-the-pants readings—control response, attitude, sound of the airflow over the surfaces of the aircraft.

Correctly executed, the forward slip results in a measurably greater loss of altitude over a given horizontal distance than a normal glide, without change in airspeed or flight path. This effect is largely due to the braking effect or increased drag of the fuselage, which presents itself at an angle to the relative wind. Slipping with the nose too low will result in a fairly sharp increase in speed and defeat the purpose of the maneuver.

The recovery requires carefully coordinated control action to maintain constant airspeed. The rudder is neutralized smoothly to prevent the nose from swinging; the wings simultaneously levelled



THE SLIP is performed with nose up, controls crossed, airspeed above stalling—rolling out with nose down

with aileron, and the tendency of the nose to drop controlled with elevator. A normal glide may be resumed if the plane is to land; otherwise the throttle may be opened to continue level flight.

The sideslip results in a considerable change in the direction of flight and in faster (and greater) loss of altitude than the forward slip. The difficulty of estimating just how much altitude will be required for recovery, plus the possibility of gusts, rule out the sideslip on the final approach in favor of the more conservative forward slip. In addition, only the forward slip gives the desired straight flight path required for the final approach.

Theoretically the sideslip may be executed with any degree of bank up to the vertical. For practical purposes in lightplane flying, however, a bank of 45° to 60° is used. The usual entry is from a normal glide. The nose is raised with elevator pressure considerably above the horizon (under no circumstances should it be lower than in a normal glide); the desired bank is established with aileron (the higher the nose the greater the bank required to hold the slip); and full opposite rudder is applied. The control pressures are applied almost simultaneously, with aileron leading slightly. In a true sideslip the plane's (*Continued on page 50*)

GENERAL RULES FOR SLIPS

1. **Executed power-off.**
2. **Near the ground, *slip* into the wind; downwind slips are subject to the same illusion of increased speed that make downwind turns unsafe.**
3. **Keep the nose as high or higher and the airspeed as low or lower than in a normal glide.**
4. **Airspeed readings are inaccurate in slips because the pitot tube is not pointed directly into the relative wind.**
5. **Prolonged slipping causes an uneven cooling of the cylinders and resulting engine roughness or loss of power.**
6. **Some airspeed is always gained in the recovery as the braking effect of the fuselage is lost; smooth coordination must be used to prevent excessive acceleration.**
7. **Most important: never use a slip as a substitute for sound judgment and good planning.**

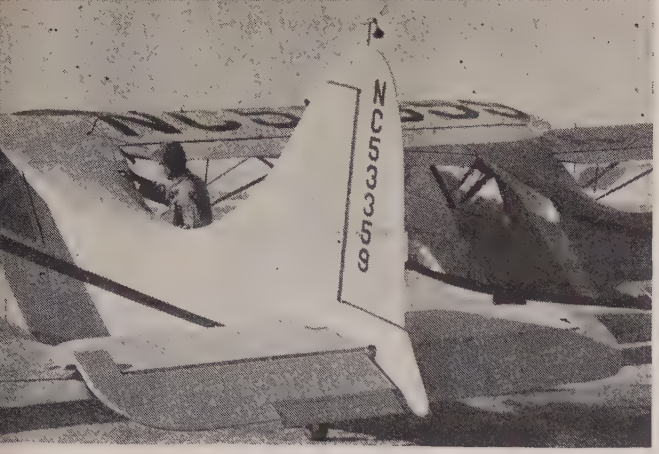
PILOT'S REPORT...

Converted L-5

The Stinson L-5 is good ship for mountain flying

By BOB ARENTZ

STINSON L-5 was built for Army in 1943. Several are civilian used



IMPORTANT ALTERATION made was elimination of glass canopy, which meant redesigning top of fuselage

IT IS no wonder to me that the army liaison pilot enjoyed a reputation as the most bodacious bumpkin in the air force. I've just been flying a licensed L-5 (Stinson) around the Rocky Mountain West on magazine assignments, and I want to go on record here and now that the L-5 not only has all the outstanding Stinson qualities in full measure, but it's also got that proved 190-horse Lycoming engine. And there, Gentlefolk, is an unbeatable combination in the opinion of this knock-around pilot who spends his time chasing county sheriffs, wild horse runners, duck-camps, rodeos, train wrecks and even cyclones for a living.

True, that L-5 is not a utilitarian airplane. If gas per hour is a problem, you'll want the 140 Cessna or the 85-hp Luscombe for two-place faster cross-country travel. If four people make your party, then by all means the *Navion* or the 150-hp Stinson *Voyager* for a private pilot in the mountains.

But for me and the camera, when it comes to landing in Dogpatch and tussling for a foothold with prairie dogs, rattlesnakes and mountain goats, there is no "animule" under the sun that will fly with the re-vamped army liaison airplane, except maybe a homesick angel who got on the wrong beam and strayed. Even then, I'd still back the L-5 in the hands of an old army liaison pilot.

In the first place, it has that good Stinson solidarity. If you have flown all the conventional airplanes and even the non-spinnable *Ercoupe*—you've got a real pleasant experience coming the first time you stall a Stinson. People don't believe what happens because nothing happens.

Here is a bigger airplane, with more weight, and you haul it up and keep dragging the stick back until she is hanging on the prop alone and when the stall-break comes, instead of breaking, she bends the air down lightly and levels off. You can start your turn when ready, Gridley.

It isn't fast. On a trip (with two aboard) to Ely recently, we averaged 105 mph true air speed 'round trip. But, with 400 pounds of crew, 24 gallons of fuel, plus 12 quarts of oil, a heavy camera case and duffel, the L-5 that Lewis Westonskow rebuilt from salvaged parts in the Hill Field junk pile

FLYING at 5,200 feet, with full tanks and two aboard, the converted ship climbs to 6,400 feet at a rate of 600 fpm, using maximum power and angle of attack

MOUNTAIN FLYING is a specialized form of aviation. Many good airplanes can't take it. The L-5 is one that can

took us out of the soft clay on the Wendover salt flats in a 510-foot take-off run.

Of course, all aircraft test pilots and factory demonstrators customarily take their airplanes off in 150-foot take-off runs, simply as a matter of course. 510 feet! Why they can do that backwards at the factory at Wichita!

However, friend this *wasn't* the factory airport, with that special air. This was a soft, clay-salt-mud flat two miles east of Utah's neglected step-child, Wendover, (which wishes it was a hundred yards west, in Nevada,) and about a mile south of the water-covered salt beds where the speed kings rule the autumn runs; and the elevation above sea level is about 4,240 ft. The L-5, being a hefty, corn-fed sort of a gal for her size, dug in an inch or two on those size two and a half shoes she wears, and that didn't exactly work like a JATO unit, either.

But, the L-5 made the 510-foot take-off with a garden-variety private pilot at the controls, whose 250 hours included then about three hours and four take-offs in that airplane and who hadn't flown 190 horsepower before. It seems reasonable to assume that a veteran liaison pilot, familiar with high-altitude short-run technique, could whittle several paces off that salty measuring stick.

POWER PLANT of the two-seater is six cylinder 190-hp Lycoming. Luggage compartment is behind rear seat

We mentioned Lewis Westonskow—well, it's his airplane and that has some importance in this discussion, too. Westonskow, of Clearfield, Utah, is a graduate of the Curtiss-Wright Technical School at Grand Central Airport, Glendale, California. Add a year of aeronautics in college, four years as a flight-test maintenance mechanic at Hill Field during the war. Lew and his partner, Benton Clay, an old bomber-approach pilot from Deming, N. M., who escaped that sandy psycho-ward and became a test pilot, now build up surplus army aircraft for resale.

Their confidence in the L-5 is so great that when I mentioned landing near Ft. Hall, Idaho, in the snow-covered sagebrush, and on the mud-flats at Wendover and on the highway at the Ely, Wendover, Wells road junction, and on a curved highway next to the big open-pit copper mine at Ruth, Nevada, 7,000 ft. above sea level, I say . . . their opinion of the L-5 as a safe airplane is such that although they invested 1,000 hours of work and $2,000 of cash in licensing the airplane, they didn't blink an eye when I suggested using the airplane for that trip.

The specific L-5 under discussion, NC 53359, was built four years ago and then junked after being stripped bare in cannibalization. Westonskow and Clay licensed two of them—the 53359 that had been junked, and 53367 which was new but had been staked out to rot, like the Indians used to stake the missionairies out on the ant hills.

NC 53359 got 1,000 man-hours of expert attention and a major overhaul on what was left of the

CONVERTERS of these two planes were Lewis Westonskow *(left)* and Benton Clay, both licensed A & E mechanics

original engine. Frankly, I prefer it to the new one, which took 500 man hours to rebuild.

NC 53359 is practically a brand new airplane which CAA inspectors called the finest aircraft repair job they had ever seen.

Both ships are listed licensed at $3,500, hence they hardly compete with new aircraft on the market. Their highly specialized limitations set them apart in this price range.

For instance—they are slower than the new Luscombes and Cessnas and they burn 12 gallons an hour according to army specifications. On the Ely trip I found they average 105 mph true airspeed at an average altitude of 7,500 ft. My figures argued with the army. All I could get in the tank was 9.4 gallons per hour. Probably drew less horsepower, but the tach was haywire and we don't know.

I have never flown the Stinson *Voyager* and so can't make a comparison there. It seems reasonable to assume, however, that the *Voyager* will fly faster with four people and burn less gas than the L-5 will with two. But I don't know.

I've been told that the *Voyager* in the mountains is strictly a three-place airplane and a darn good two-place ship, but I don't know what the comparative basis was.

Now, at $3,500 you can look closely at the 85-hp Luscombe and the Cessna 140, both providing low cost-per-mile flying for two people. But that doesn't belittle the L-5—it was built for a special job. Civilian flying has some specialized items, too, and it's to those potential users that we are talking.

State police organizations could look far and wide before finding a ship better suited to their needs than an L-5. For the mountain-country county sheriffs now have at least one deputy who flies.

Take Tom McLaughlin of White Pine county with headquarters at Ely, Nevada — Tom is shopping around right now for an airplane because he knows its potential value to his community, but Tom is not a pilot.

However, Undersheriff Charles Duncan has just won his private license under G.I. Bill of Rights training. Now, Charley Duncan is a law officer, not a professional pilot. He wants an airplane he can use when he needs it, the same as he wants a gun on his hip. And he has to make a choice.

Naturally, when the shooting starts, there's nothing for close-range fighting quite like the .45-caliber Thompson sub-machine gun. But it's pretty hard to carry one around in your hip pocket all the time. The White Pine county aviation requirements are subjected to the same selective necessities.

When they want to rush a gun-shot victim or dying rancher to a Salt Lake hospital, naturally a Beech *Bonanza* with a professional pilot at the controls would outdo an L-5. (*Continued on page 52*)

PANEL NOTICE on the L-5 calls for 30 degrees flaps for best take-off, and full flaps for slowest landing speed

A Flyers' Resort

AIR VIEW of what soon will be a national headquarters for private flyers off Florida's coast in Gulf of Mexico

COTTAGES now on the island will be replaced soon by 30 two-room guest-suite cottages and a club house. For time being these cottages can be used by guests

TROPICAL atmosphere that pervades Honeymoon Isle will be retained for the pleasure of the visiting flyers. Such popular evening pastime as fireside fun prevails

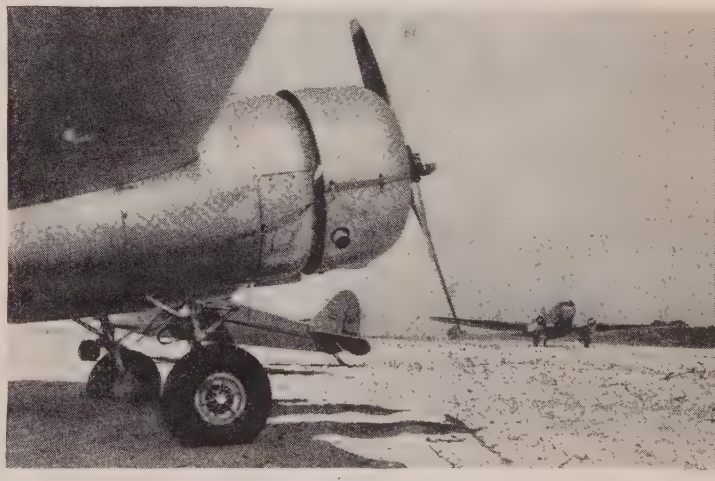
NAVY LCT, now being used to haul lumber and building supplies, will be rebuilt to be a sort of floating night club for visiting flyers who would enjoy cruises

CREATOR of Honeymoon Isle, C. M. Washburn *(left)* is shown here congratulating the young man in charge of island's development. He is Dick Wolfe, Toledo, Ohio

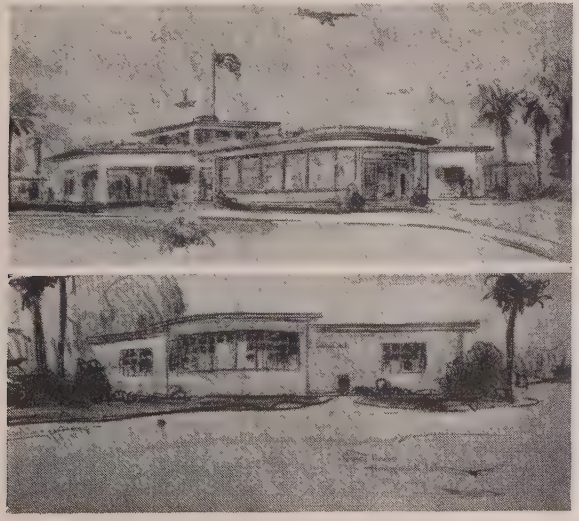
AIR STRIP alongside the beach on this island will take all airplanes, whether they're twin-engine Beech's or Cubs

PILOTS and newlyweds have more in common than ethereal attitudes . . . they have Honeymoon Isle, in the Gulf of Mexico, two miles off Dunedin, Florida. For the past several years, Honeymoon Isle has been just what the name implies . . . a resort for honeymooning couples. Today, however, it has broadened its beckoning to include pilots and plane owners with a yen for a place to fly to. There are guest cottages available, recreational facilities and a 3,000-foot air strip that'll take any plane from a Piper *Cub* to a twin-Beech. Plans are going forward for 30 new guest cottages, a seaplane base, hotel, additional recreational facilities, hangars, etc. And just to prove that it's destined to become a national resort for private flyers, all the planning for it is being done by well-known sportsmen pilots. So, you pilots, get out your Orlando Chart and head for Honeymoon Isle.

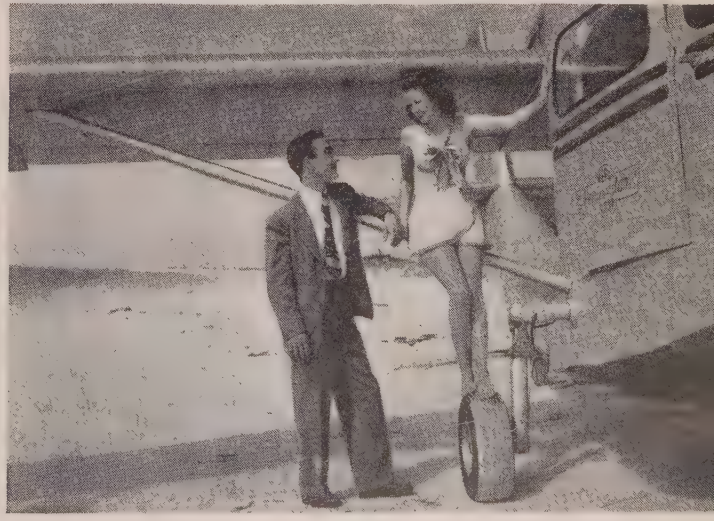
MULTI-ENGINE SHIPS such as this DC-3 have flown several groups of vacationers into Honeymoon Isle. Several charter services fly in regularly each week



GUEST HOUSES that are right now being built are modern, well-equipped with hot and cold running water, showers and heating stoves for a "rainy day"



SEABEE, owned by Peninsular Aero Corporation of Tampa, is flown into Honeymoon often. On this trip it landed on beach and was flown in by Betty Skelton



WHICH IS IT Department! *Constellation*? No. *Ercoupe*? Yes . . . experimental. It's on Edo floats utilizing a third (middle) vertical aero fin for directional stability

HANGAR FLYING

CAA Notes

The CAA is relieved their "fan mail" no longer includes an abundance of complaints regarding the noise-nuisance from low-flying aircraft. Much of the annoyance to persons on the ground has been avoided by changing traffic patterns around airports, and by pilot cooperation in using suitable power and propeller-pitch settings. Regulations forbid flying below 1,000 feet over congested areas, "except when necessary for taking off and landing . . ." Since much of the noise originates during landings and take-offs from fields close to residential areas, such traffic patterns were changed to take planes over water, industrial districts and wastelands. . . .

Newest contribution to elimination of noise is the multi-bladed prop such as used on the Fulton *Airphibian*. Personal aircraft companies are experimenting with this type prop for their new planes. . . .

Student pilots must pass Civil Air Regulation test before *soloing* according to Civil Aeronautics Board ruling on April 1 last.

Caution . . . Seaplane Pilots

COLLEGE POINT, L. I.—Seaplane pilots flying cross country and using the yachtsman facilities at times—to include white marine fuel—might observe a word of caution.

The fuel does have a peculiarity for which proper allowance should be made . . . the gasculator will need cleaning once every day and the engine will have a tendency to ice up, even on take off. This is due to condensation which seems prevalent in the use of white marine fuel in aircraft engines.

Otherwise, it's OK, producing good power when not icing . . . but watch for the icing.

Can You Top This?

MITCHEL FIELD, NEW YORK—On a day when low-hanging stratus covered all of Long Island and New York City, visibility was "low-zy." Heavy traffic resulted in a "stack" of aircraft up to 12,000 feet, each plane awaiting its turn to make an instrument approach into Floyd Bennett, La Guardia or Mitchel.

On top of the stack was an Army C-54 en route to Mitchel Field from overseas. Airway Traffic Control advised the pilot his expected arrival time was six hours hence and asked the pilot if he had sufficient fuel to "hold" that long. When, after sending this message, ATC could establish no further radio contact with the C-54 pilot, controllers became perturbed.

Some time later the following radio call was picked up: "This is Army's C-54 pilot over Port Chester at 14,000 feet. Was unable to hold account insufficient fuel. Made emergency landing at Mitchel Field to refuel. Am now back in stack awaiting ATC instructions to land at Mitchel Field."

Submitted by John C. Truman

Via the Lightplane of 1947 . .

JACKSONVILLE, FLORIDA—Four days after leaving JX (Jacksonville) in his Cessna 140 Charles F. Lovan looked back over a 3,423-mile pleasure trip that reads like a Richard Halliburton excursion.

Mr. Lovan flew 332 miles to Miami and on down the Keys, refueling at Key West . . . he took off for Havana, Cuba, 237 miles away, refueled there and "RON'd" at Merida, Mexico, another 435 miles across the Gulf; having cleared customs twice that first day. The next day he flew 730 miles to Mexico City stopping at Coatzacoalcos for gas. On the third day he flew from Mexico City 258 miles to Brownsville, Texas, and "RON'd" at Baton Rouge, Louisiana, another 328 miles further. The fourth day he headed for home—flying 679 miles to Panama City, Florida, where rain stopped him. He arrived at his home airport the following morning.

Total cost, exclusive of hotel and meal bills was $179.56. Breakdown: $57.16—gas, oil and maps. $41.77—Cuban and Mexican port of entry charges. $34.10—Cuban army.

The longest over-water hop—485 miles from Havana to Merida. The highest altitude flown—14,000 feet to clear range of mountains near Mexico City.

This is the story of a citizen's pleasure trip. His flying time *included* sight-seeing from the air and *allowed* sight-seeing-trip time on the ground. But Mr. Lovan, a contractor by trade, is a smart 1947-plane owner. He does not confine the use of his Cessna 140 to pleasure trips. He flew the 890 miles to CG (Chicago) from JX to attend a national convention of contractors.

Another County Heard From

WHITE PLAINS, NEW YORK—Landing fees for private flyers have been removed from Westchester County Airport, reports Robert W. Gallaway, General Manager.

Hats Off . . . to the British!

LONDON, ENGLAND—Women will perform non-combatant flying with the Royal Air Force for the first time, Air Minister Philip Noel-Baker disclosed in the House of Commons one day this Spring. Mr. Noel-Baker said women would be trained for communications work and other flying duties. The Government also planned a reserve flying branch for qualified women pilots. *The New York Times* gave this write up the headline: RAF to Get Women Pilots.

(The WASPs, who flew AAF planes during the war, are seeking similar recognition that would allow their group—on a retroactive basis—their Government's protective insurance the same as their British sisters and brother AAF and RAF pilots had throughout their respective flying service.)

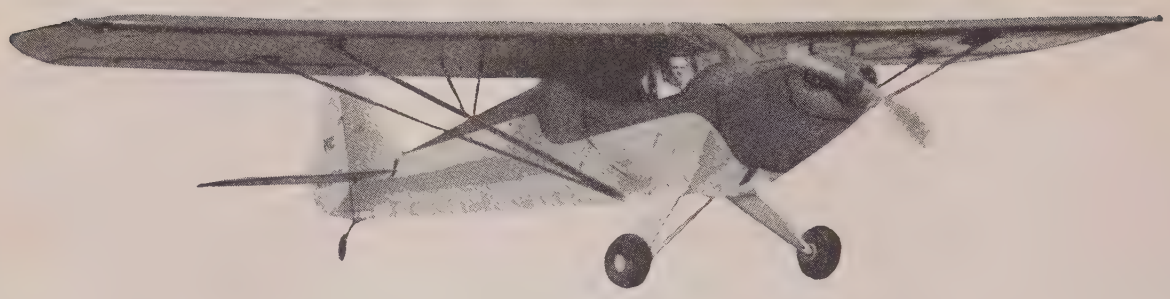
For The Bookworm

NEW YORK, NEW YORK— *You Can Learn To Fly* by a pair of qualified pilots, Bevo Howard and Bill Strohmeier is published by Prentice Hall here. Unexcelled in thoroughness and comprehensiveness, flight principles are introduced to the newcomer. It's good reading for all pilots and a good reference, as well, replete with illustrations. G. L.

IN THIS corner we have the Lockheed *Constellation's* well-known empennage

The FLYING SPORTSMAN

A Special Section...Sports in Season



TRY BEACH LANDINGS

Beach parties are always fun, but you can add to yours by coming in by plane

By WILLIAM A. PRICE

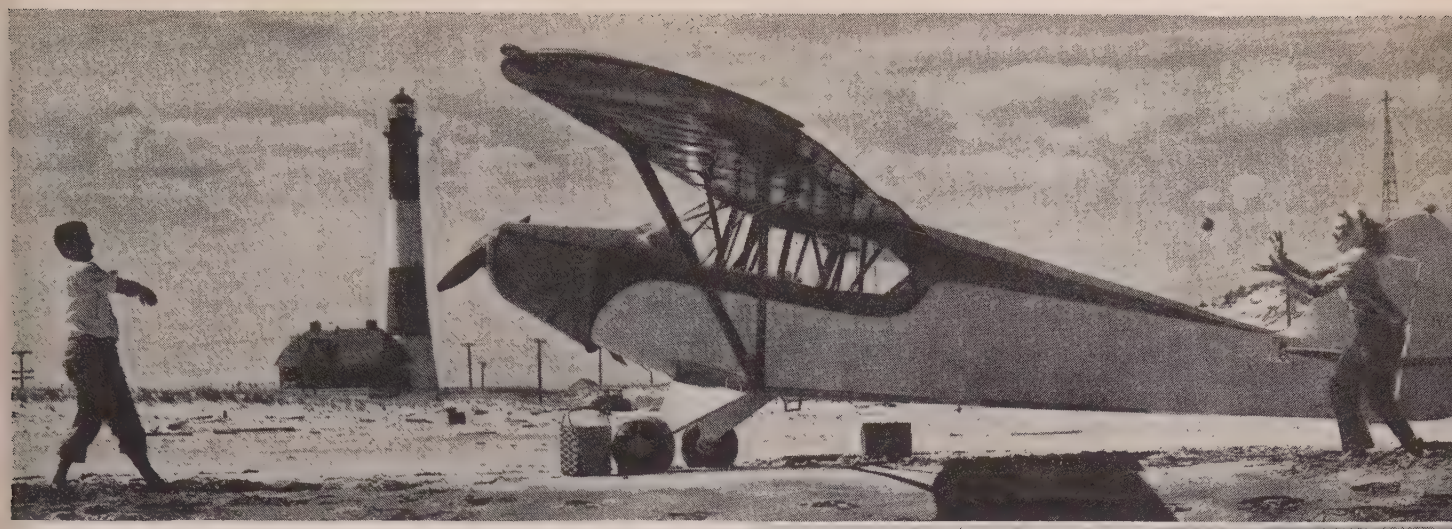
THE thousands of miles of unspoiled, deserted beaches whose sands slope down to the sea along America's coasts are the natural recreational air strips of the future.

Beach parties by plane to areas where the sands are the cleanest and the air is the free-est can give a small plane the kind of utility that most private owners for years and years have just dreamed about.

Beach landings have been made. Beach parties by plane, singly and in groups, are already a reality. All you need is a plane, a bit of coast line, and a little common sense.

And this comes strictly from the old timers themselves—those fellows who know by doing.

WEEK-END BEACH PARTY in the modern way is via personal plane. Streaks in sand are ruts caused by tail wheels



SANDY SHORES of Fire Island, on Long Island, provided perfect landing spot for this *Supercruiser*

"Pick yourself a beach from the air," says Ed Gorski, who has made a living out of flying since 1922, "carefully drag it to be sure it's okay, and then just sit down nice and easy.

"Using the ordinary required amount of horse sense, there's no reason why anybody can't use a beach to land on, make a party out of it, and really have a whale of a lot of fun."

Gorski, manager of Lincoln Park (N. J.) Airport, should know. For many years boss of his own flight

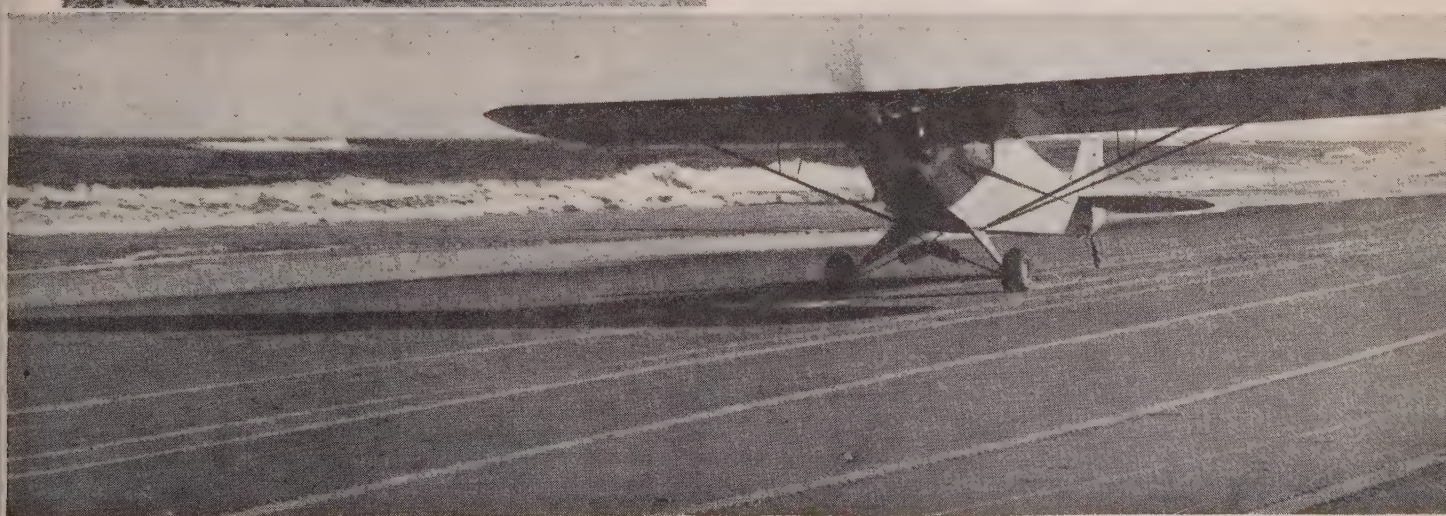
FLORIDA BEACHES are good landing areas. Similar highway-hard stretches also are used for auto racing

OCEAN beaches, not lakes, are suitable for planes

school, he has sponsored yearly mass flying beach parties to Assateague Island, a lonely bar of sand ranging down the coast of Maryland and inhabited only by wild horses.

In the parties were practically all types of planes, from lightweight trainers to an ancient Fokker transport. The pilots ranged in experience from

LIGHTPLANE pilots who plan to bring ships in on beach often deflate tires a little. Tail wheel acts as brake



WIDE, HARD-PACKED surface, caused by ebb and flow of ocean tides, are best for plane landings or take-offs

Gorski's 6,000 hours to two of his students who had only enough solo time to get private licenses. These two flew planes belonging to Gorski who is not known to be reckless with his flying property—and they brought their girls with them.

"There are cautions to observe," Gorski says, "but in all the beach landings I've seen, I have yet to see anyone get into trouble."

In considering beach landings, the first essential is to do everything you can to check the nature of the beach. Any beach which can support a car should be ideally suited for plane landings. Pilots of the South Atlantic states know the wide hardness of many long miles of such beaches where the problems of landing are practically non-existent.

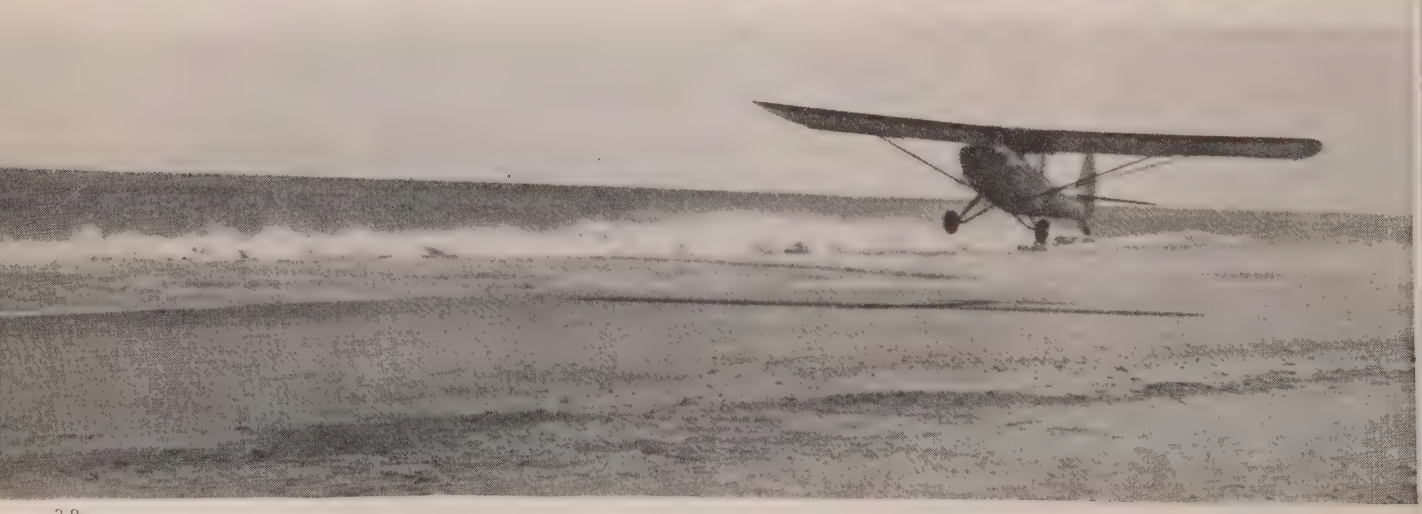
Where the beaches don't show automobile tracks, check with nearby airports, Coast Guard stations, friends who may know the beaches, and anybody else who can help you. But if there is no way to check in advance, you're still not licked, because a lightplane can land where a car fears to tread, and beach parties are at their best in the unspoiled, isolated areas about which there may be no information available to the prospective picnickers.

In this case, take Ed Gorski at his word, go beach prospecting, drag any area that looks good from the air, and have yourself a close-up view.

Beaches are hard or soft, according to current tidal action. Generally a beach is comprised of three parallel strips. The first is close to the water, between the low- and high-tide marks. It is covered twice a day by tides, is invariably the hardest, and if it is wide and free from obstructions, makes a perfect air strip. From the air it will appear wet, and darker than the rest. Wheel and foot tracks leave marks on the sand, but no shadows. Sometimes, however, this area may be narrow and have a steep slope to it.

Above this will be a portion of beach that is covered by water only at "spring" tides which occur twice a month during the days of both the full and the new moon. This area will be more level than the first, and probably wider. Wheel and foot marks will have a definite indentation an inch or two deep. It is generally suitable for landings, but may offer problems for take-offs. (*Continued on page 56*)

BEACH TAKE-OFF of plane should follow tracks made in landing. Keep tail up, though not high, on take-off



TROUT FISHING outfit for the novice will cost anywhere from $75 up. It includes rod, reel, creel, waders, etc.

When It's Spring...

By J. DAVIS SCOTT

FROM legendary Brodhead's Creek in Pennsylvania's Poconos to the snow-fed South Platte River in Colorado the trout are calling.

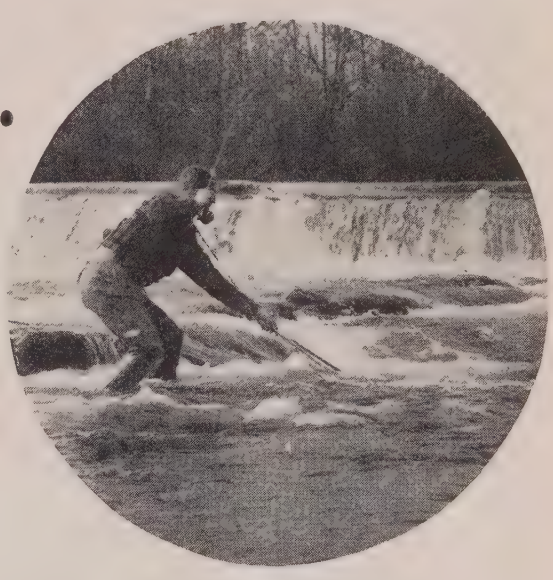
Into many a lightplane this month will go fly rods, creels and waders as thousands of flying sportsmen, together with those who will walk or ride along the ground, journey forth to test their skills.

This, the experts say, will be trout fishing's greatest year. The shelves of sporting goods stores are jammed again with considerable equipment. State, local and store information services are answering an unprecedented number of requests for data on trout streams and seasons.

All across the nation the speckled and spirited trout is waiting in his favorite haunts. In New England he swims along thousands of miles of well-stocked streams. Along the Alleghenies and the Atlantic coast regions he is king—in New York, Pennsylvania, New Jersey, the Virginias and in North Carolina's mountainous sections. In Kentucky there are more good trout than good horses. Colorado is as famous for its trout streams as its Grand Canyon. And the rainbow trout is to be found nearly everywhere in the Rocky Mountains and the Pacific West.

Among the millions who will seek the trout there will be, as always, many first timers.

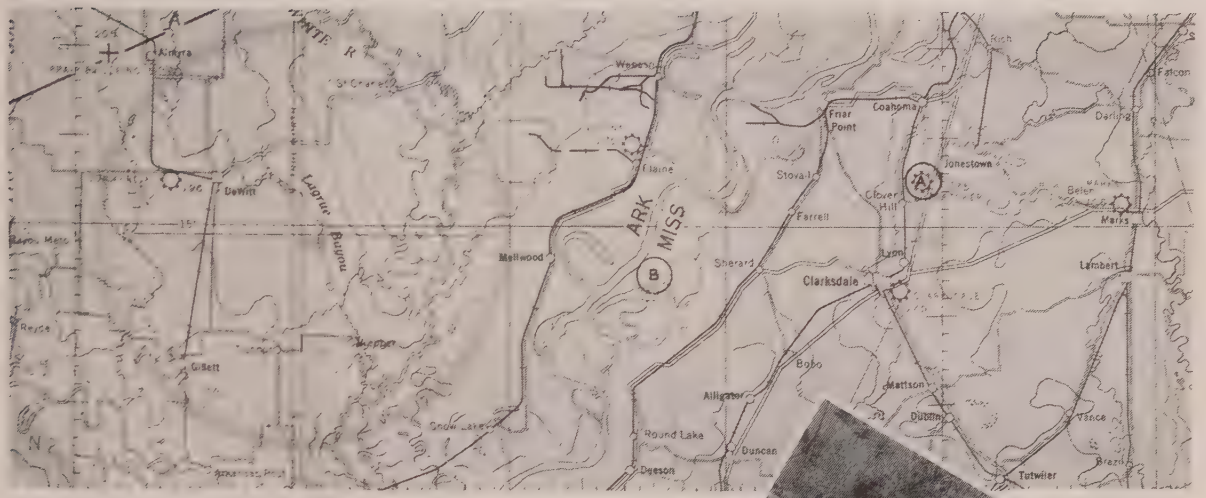
"What does an essential trout fishing outfit include?" these novices have (*Continued on page 70*)



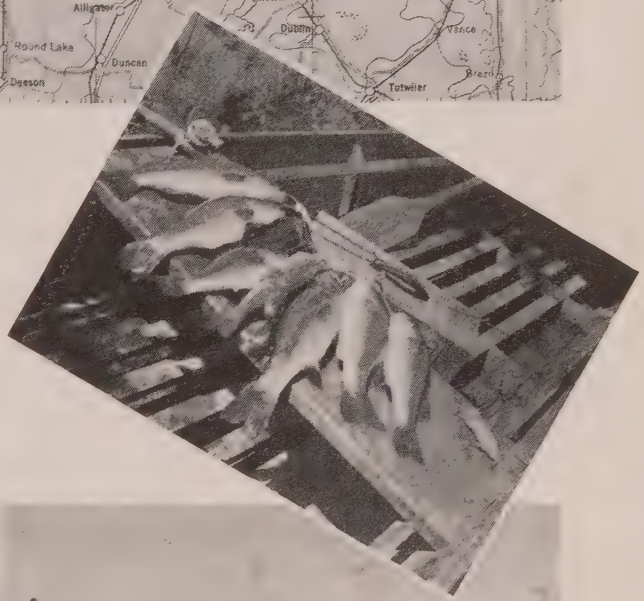
BRODHEAD'S CREEK in Pennsylvania's Poconos is famous to trout fishermen everywhere. Each year this creek is stocked with trout, many already good-sized

FISHERMEN'S PLANE safely sitting it out on a sand bar. Anderson and Johnnie Sommers *(above)* pulled in fish

Bass of Lost Bayou



LOST BAYOU is fisherman's paradise. The author flew there *(marked B on map)* from Fletcher Field *(A)*



AUTHOR'S CESSNA 140 delivered the fishermen to this fishing spot. Result—eight good-sized bass

By MABRY I. ANDERSON

FROM the airport (Fletcher Field, North of Clarksdale, Miss. "A" on chart above) to Lost Bayou is a scant 20 miles as the crow flies, but by road, it's a long, long way. During the rainy season, this is especially true. The meandering log trails that wander aimlessly through the virgin forest take on the consistency of heavy glue. The bayou, you see, lies far behind the levee that holds the mighty Mississippi River in check. Road building there is simply a waste of time.

As is usually the case, the bayou's very inaccessibility adds greatly to its charms. Like most bodies of water that lie behind the levee, Lost Bayou is a veritable fisherman's paradise. Bass are there in countless numbers, finding sanctuary in its shaded depths and along its cypress studded shores. Every type of aquatic growth native to the deep south is present in rank profusion; yonkapins, water hyacinth, lilies and elbow bushes giving way only to acres of switch willow and tupelo gum. For the angler who can spare the time, the place offers everything. But along with most of us, I can seldom spare the time.

Like most good sportsmen, Johnnie Sommers is a nice guy with human failings. He has, in fact, two distinct faults, the first being that he's a rabid surface-bait fisherman and the second being a sort

PILOT-AUTHOR Anderson, using a bucktail lure and fishing deep, pulled in the first bass, a biggie, from the bayou

of ingrown distrust of airplanes! In his more or less constant pursuit of bass, he seldom stoops to any lure other than his beloved surface plugs, and as for airplanes, he keeps his feet on the ground! For years I'd tried to change him, with no success until one eventful day—

For a week it had rained. Roads were utterly impassable and, in most cases, fishing was out of the question. Lakes were high and muddy and when the sun came out after its long sojourn, I wracked my brain for an answer to my predicament.

Acting upon impulse, I rolled out the little Cessna 140, checked the gas and took off down the water-filled runway, turning westward toward the river as I left the pattern. Within minutes I was over the forest, a wide expanse of swamp and timberland, terminating at the river's edge. Far down below, the river itself coiled its way toward the Gulf, unhurriedly carrying its muddy contents southward. For a while I flew aimlessly, circling the woodland at a safe altitude until suddenly I recognized Lost Bayou off to my right. With nothing better to do, I cut the throttle, gliding down for a better look. The water, though high, was as clear as gin and I wished fervently for a place to land. Suddenly I saw it! Straight ahead, not a half mile west of the end of the bayou, lay the river, and the sandbar that followed the shoreline ran unbroken for miles. For years Delta pilots have landed on these sandbars in quest of ducks and geese, the hard-packed yellow sand being almost like a paved runway. Pulling the ship up, I swung over the bar, dragged it thoroughly and set her down into the wind. Half a mile away lay the bayou so, after

LURE of large-mouth bass persuaded Johnnie to go to the bayou by plane. It was his first time in the air

locating a trail through the forest, I returned to the ship and headed for home.

"No, I'm not nuts!" I shouted into the phone. "Dammit, when I say I can take you to Lost Bayou, don't argue with me! Get your tackle ready and meet me at the airport."

"Did you say airport?" snapped Johnnie. "You're not thinking about puttin' me in an *airplane* are you?"

"Listen, Johnnie," I begged, patiently. "For once, forget about airplanes and just come on. There's a landing field over there (*Continued on page 64*)

Indiana Farmers Cry Tally-Ho! From Planes

CHARTER LINE CUTS HUNTERS' TRAVEL TIME

TAKING UP where scheduled airlines leave off, Sportsmen Airways extends air routes to keep vacationers' travel time to minimum. Charter customers from Duluth, above, deplaning at Christink's Poplar Portage Camp at Abram Lake, Ontario

Aerial Hunting Not New

Recent stories of aerial hunting and pest control bring back memories to at least one old-time Flying Sportsman. Floyd Barlow, of Chino, California, informs us that aerial hunting originated in South Dakota, nearly 20 years ago. He and Clyde Ice, another old-timer from Spearfish, South Dakota, started hunting coyotes with a long wing Eaglerock plane, right after the first world war. Clyde Ice still hunts the coyote every winter by plane. Floyd Barlow, incidentally, has been a licensed pilot for 36 years, and still flies his own BT-13. His first license was issued by F.A.I., and his first solo flight, in one of Glen Curtiss's "very few cracker boxes" lasted no longer than 10 seconds!

Solo For Smokes

As every pilot knows, there are times in the life of the average cigarette lighter when it requires just as many hands for operation as a match does. The Imco Automatic, called the "Solo," is designed to eliminate, once and for all, two-handed operation. The lever which raises the hood and lights the wick is a structural part of the case, and responds instantly to a slight pressure. The windguard is high, and the flame is healthy—perfect for cockpits with "natural ventilation." And for the pipe smoker, the tank is removable to provide a torch for the hard-to-reach bowl. Priced from $2 to $3, the Imco Automatic is available in nickel, aluminum, or chromium finish, etched or satin-smooth.

QUEBEC INVITES FLYERS

The U.S. sportsman flying to Quebec in his own plane or in a charter plane will find little in the way of formalities involved. The aircraft should carry 1) aircraft registration certificate, 2) airworthiness certificate, 3) log book, and 4) aircrew license or certificate. If he intends to land at any airport other than Dorval (Montreal), it is necessary to obtain a telegraphic confirmation of his notice of arrival. Complete information can be obtained from: Province of Quebec Tourist Bureau, Parliament Bldg., Quebec City, Canada.

EUROPEAN FLIGHTS FOR TWO-WEEK VACATIONERS

The sort of vacation you and I dream about all winter, figuring budgets and time-tables, is all in the line of business to Louis Kelly, head of the air transport division of the American Express Company. Mr. Kelly recently returned from an air survey of Europe, paving the way for the vacationer whose trip will be arranged by American Express.

Covering 10 countries in five weeks, Mr. Kelly found European travel people enthusiastically planning for many summer tourists, and notes that advance bookings of accommodations will be particularly important. Since Paris is no more than two air hours from any major city of western Europe, it will probably become a popular base of operations. Mr. Kelly calls Lisbon, where 14 airlines cross, a major "gate-way to Europe."

Mr. Kelly promises that the French and Italian Rivieras, all of the Swiss resorts, the Low Countries, and even Scandinavia will be very much in the resort picture this summer.

With present-day airline schedules, would-be Marco Polos with only a two week vacation no longer need suppress their natural inclinations—it's ho! for a far countreeeee!

(*Continued on page 68*)

Flying-Walking Teams Hunt Out Predator Red Fox

Raiding hen-houses and pig sties, depleting the supply of cottontails, and even snaring certain game birds, the red fox makes quite a nuisance of himself out Indiana way. Hamilton County (just north of Indianapolis) farmers, their dander aroused at the loss of income-producing pullets and pigs and sport-producing rabbits and birds, hit upon a novel solution. The farmers divide up, some taking to the air as scouts and others staying on the ground to handle the guns. Such teams of spotters and stalkers accounted for 100 red fox in Hamilton County last winter. Credit for the idea goes to Lowell Millikan, a pilot from Sheridan, Indiana, and his brothers, a group which accounted for 46 of the county's total. The Flying Farmers Club of nearby Cicero tallied 30, and the other 24 went to Noblesville Airport's hunters.

In order to spot the wily fox from a plane, of course, the red predator must be lying out in open fields. They seem to do this all winter until the end of the mating season, during February. An open field with plenty of cover will frequently disclose a fox sound asleep right in the center.

The procedure for the fox hunt is simple, direct, and deadly. First the spotters, most often in *Cubs*, go up and drag the open fields. After locating the fox, they return to the airport and give the location to the gunners who then go off by auto. The plane follows a few minutes later, and starts pylon eights around the unfortunate victim.

Meanwhile the gunners leave their car and begin the stalk. They start down-wind and work around the fox until he is entirely surrounded, being careful to keep themselves out of his sight. Once they have him enclosed, the pilot waggles his wings to signal the gunners to start advancing. Though the plane doesn't disturb the fox at first, its continued presence finally makes him nervous and he stands up. Soon he scents one of the gunners and starts to run. The pilot throttles his engine as a signal that the fox is running, and the gunners rise and open fire. Should the fox break through the circle, the pilot would follow him until he stopped again, when the procedure would start all over again.

Hamilton County pays a small bounty on foxes. The money received from a winter's take will just about cover the cost of operating the plane, but the value of ridding the area of an expensive predator, together with the sport of the hunt is immeasurable!—*Robert E. Wise.*

come to Québec BY AIR

Countless lakes and rivers teeming with game fish await you in Quebec's hinterland. Competent guides and an old fashioned welcome await you in Québec. For help in planning your trip, write **PROVINCE OF QUÉBEC TOURIST BUREAU, Québec City, Canada.**

LA PROVINCE DE Québec

In the Heart of the Old West

A truly Western Ranch with a history dating back to 1882. In the heart of the Rockies and Gallatin National Forest just 7 miles N. W. of Yellowstone National Park.

- The best of scenery and the finest western riding country.
- Daily horseback trips to mountain lakes and streams.
- Log cabins, each with wood stove, furniture, innerspring mattresses—some cabins with private baths.
- Central dining room—food served ranch style.
- Lighted and supervised swimming pool. Northwest. Warm sunny days and cool evenings. Cabins, pavilion, general store on the ranch and other interesting parts of Park within easy motoring distance. Several scenic flying trips available over the Park and surrounding country.

Write, Phone or Wire for Reservations
NINE QUARTER CIRCLE RANCH
GALLATIN GATEWAY, MONTANA

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Flying Sportsmen, fly to Maine's best salmon, trout and bass waters for your fishing. Airport at Princeton is in the heart of Maine's best fishing section. Camps located one mile from airport. Fish in Long Lake, Big Lake, Grand Lake, St. Croix River. Log cabins, excellent food, boats, canoes, guides, Indian or white. Write for descriptive folder.

LONG LAKE CAMPS
Ed Jones Princeton, Washington County, Maine

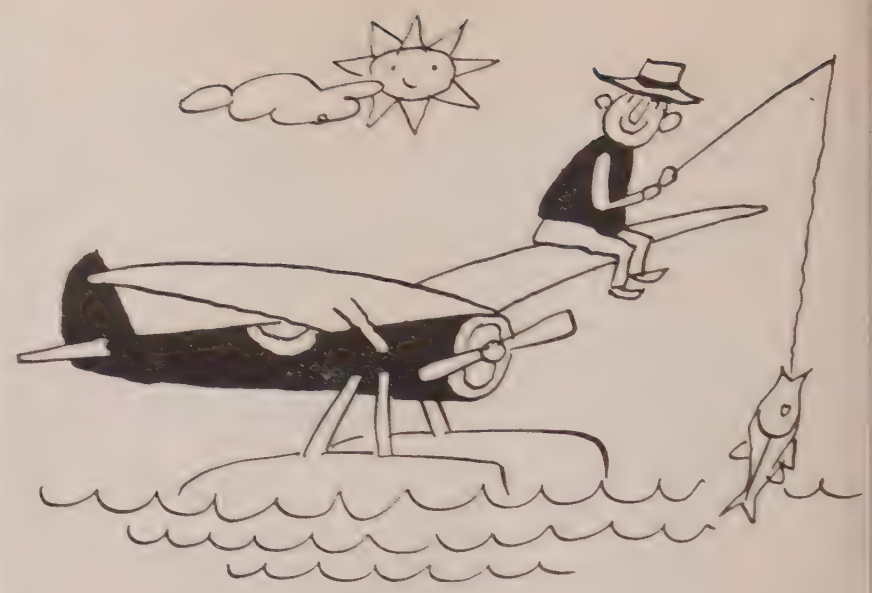
FLYING SPORTSMEN

Pilot your plane directly to our landing field and enjoy a real Dude Ranch Vacation. Excellent trout fishing in pure streams and majestic mountain lakes. Horseback riding on scenic trails. Unsurpassed mountain scenery. Comfortable log rooms with bath. Ranch cooked meals. Accommodations by reservation only.

QUARTER CIRCLE M C RANCH
Polebridge, Montana

PILOTS!

Watch this "Where to Fly" Dept. for weekend or vacation suggestions of where to go and what to do there.



Where to Fly

Minnesota

Pick out just about any spot in the state of Minnesota and you'll find it filled with the kind of hunting and fishing the Paul Bunyan tales are made of. Actually, Minnesota is one of the most fertile spots in the world when it comes to Izaak Walton-ing or Daniel Boone-ing. During the fishing season, you can cast a line for pike, bass, pickerel, crappies, muskies or trout . . . and whichever you get will be good-sized. If it's hunting you're after, there's plenty of duck, grouse, deer, bear, wolf or even beaver. The state also offers its guests boating, swimming, sailing, skating, skiing, tobogganing or sleighing. Just pick your season . . . and there'll be plenty to do in Minnesota.

For good fishing, the northern part of Minnesota offers about the best. Around Bemidji there are 180 lakes within a radius of 50 miles . . . and each lake brims with pike, bass, muskies or trout. The Park Rapids district is another fertile fishing spot. Northeastern Minnesota, around Arrowhead Lake County, also offers exceptional fishing, as do Ely, Detroit Lakes and Williams.

In the Central Minnesota region, try Wadena for good fishing. Hunting, too, is the headline variety at any of the Minnesota spots mentioned.

If you want to fly in via scheduled airlines, Northwest Airlines and Mid-Continent both serve the Golden Bear State.

Good charter services operate out of and into all these excellent fishing areas, and a letter to any one of them will bring you detailed information regarding accommodations, seasons, etc. Write to North Star Airways at Coleraine; Park Region Airways at Park Rapids; Verne's Flying Service at Wadena; Blue Mound Air Service at Luverne, or Northeast Airways, Inc., at Virginia, Minnesota. Northeast Airways, by the way, will pick you up at Duluth, Northwest Airlines' point of operation, and fly you to the Arrowhead region at a very reasonable rate. Northeast operates landplanes, seaplanes, and ski-planes during the winter. Other seaplane charter services that will pick you up anywhere and fly you directly to the fishing waters are Leithold Seaplane Service at Ely, Minnesota, and the Moberg Seaplane Anchorage at Bemidji in the heart of the sportsman's Minnesota utopia. Most of the charter services will help you plan a hunting or fishing vacation and will make all the necessary arrangements for you.

One of the leading charter services operating in Minnesota is the Sportsmen Airways of Duluth. This company's fleet of airplanes includes Aeronca *Champions* on floats, *Seabees*, *Widgeons* and a new de luxe Noorduyn *Norseman* which will carry seven. Sportsmen Airways will meet the visiting flying sportsman at Duluth, take him to any of the hundreds of perfect spots for hunting or fishing Canada is included on this charter service's port of call, also.

Personal Pilot Information:—

Williamson-Johnson Airport — *Duluth (Cl. 4)—El. 1428 feet; 3 soil and cement runways: NW/SE, NE/SW, E/W. Navigation facilities: rotating beacon, obstruction lights, boundary markers, name on roof, lighted wind cone. Obstructions—hangars and tower SW poles. S. Hangar, teletype, weather bureau, motor repairs, 80-91 Octane fuel, storage, night service on call. Taxi and private car to town 9.5 miles NNW. (Duluth Chart)*

Ely Municipal Airport *(Cl. 1)—El. 142[illegible] feet; 2 bare strips, NE/SW, NW/SE. Navigational facilities—name on roof. Obstructions—brush and trees surrounding field, incl. NW pole line-W. Hangar. Private car to town 1.[illegible] miles E. Duluth Chart)*

Bemidji Airport *(Cl. 1)—El. 1395 feet; allway sod area. Name on roof, circle on field, wind cone. Obstructions—hangar, SW pole line S. trees-N. E. S. W. 2 hangars, [illegible]*

Octane gas storage. Private car or taxi to town 2.5 miles NNW. (Duluth Chart)

Moberg Seaplane Anchorage—*El. 1350 feet; 150-foot lake front, ramp, wind cone. Obstructions—tree bound lake. Hangar. 80 Octane gas. Taxi to town 1 mile. (Duluth Chart)*

Coleraine Airport *(Cl. 1)—El. 1390 feet; Allway sod area, wind cone. Obstructions—water tank. NW, Hill, WNW. Hangar, 80 Octane gas. Taxi to town .8 mile SSE. (Duluth Chart)*

Detroit Lakes Municipal Airport *(Cl. 1)—El. 1392 feet; 3 turf strips, N/S, E/W, NW/SE. Boundary day markers, wind cone. Obstructions—tele. line—N. NW. Hangar, 80 Octane gas, storage. Private car to town 2.7 miles W. (Duluth Chart)*

McDowell Sky Ranch—*LuVerne. (Cl. 1)—El. 1440 feet; 2 turf and bare strips, E/W, NNW/SSE. Boundary day markers, wind cone. Hangar, minor repairs, 80 Octane gas, storage. Private car to town 8 miles NW. (Sioux City Chart)*

Brainerd Airport *(Cl. 1)—El. 1201 feet. Allway area 2200 feet by 1320 feet. Boundary day markers, circle on field, wind cone. Obstructions: trees, S.W, NE; stacks, N, WNW. Hangars, 80 Octane gas. (Duluth Chart)*

Faribault Airport *(Cl. 1)—El. 1050 feet. 2 sod strips, N/S, E/W. L-shaped. Wind cone and tee. Hangar space. 80 Octane gasoline. Taxi and private car to town 1.6 miles S. (Twin Cities Chart)*

Fergus Falls Airport *(Cl. 1)—El. 1160 feet. 3 sod strips, E/W, N/S, NW/SE. Wind cone, Hangars, 80 Octane gasoline, day service. Taxi to town 4.3 miles W. (Fargo Chart)*

Otis Lodge—*Grand Rapids (Cl. 2)—El. 1293 feet. 3 sand and loam strips, N/S, E/W, NE/SW. Boundary day markers, 2 wind cones. Hangar, 80 Octane gasoline. Limited to guests of the resort. (Duluth Chart)*

Virginia

The historical state of Virginia offers the visitor more than history. Its scenic beauty is the kind that sets bards to . . . barding, and its hunting and fishing is said to prompt poems of praise from even the not-so-literary hunters and fishermen.

That section of Virginia that boasts Weems is one of the finest for yachting on the eastern seaboard. It also provides some of the best hunting and fishing. There are a number of wonderful bathing beaches and hotels (inexpensive) in that vicinity. For more detailed information, write Rappahannock River Flying Service, Currell's Field at Weems, Virginia.

Personal Pilot Information:—

Currell's Field—Weems *(Cl. 1)—3 runways, Day service, 80 Octane gas, Storage or tie-down. Car to town 5 miles.*

Missouri

The state of Missouri is one of the most aviation-minded of all the 48. There are probably more facilities for the sportsman pilot in this state than there are in any other state. Add to that the outdoor sports activities Missouri offers and you end up with a veritable flying sportsman's paradise. In the Springfield area there is full hunting at Brason, 42 miles south of Springfield, at Bright Elbow Ranch on the White River, 20 miles below Lake Taneycomo Dam, at Gainesville, 60 miles southeast of Springfield. Also around Brason are excellent trout fishing, boating, etc. Another good trout fishing spot is near Lebanon, Missouri, in the south-central part of the state. A letter to the Lebanon Flying Service will bring you detailed information regarding sports activities in that part of Missouri. There's a good trout stream (Bennett Springs) just 19 miles W. of airport. In the Springfield area, a letter to Southwest Aeromotive Corporation, Queen City Airpark, Springfield, or the McFarland Flying Service, McFarland Airport, Springfield, will bring you so much data on hunting, fishing that you'll want to gas up and take off right away.

The Ozark section of Missouri has enticed many a flying sportsman with its reports of excellent hunting and fishing . . . and those reports are all accurate. Guest facilities are available, and a letter to the Harris Flying Service, Box 365, Versailles, Mo., will bring you details via return mail. And when it comes to hospitality, this Harris outfit rates triple-A high. They'll get you reservations, plan your trip and look after your airplane. It recently was awarded the NAA Safety and Good Operations certificate.

As far as the scheduled airlines are concerned, Missouri is served (via St. Louis and Kansas City) by TWA, American, Chicago & Southern. Eastern, Mid-Continent and Braniff nearby. Charter services will fly you at reasonable rates from these city centers to the areas of superior hunting, fishing, boating and swimming. McFerrin Air Express, Inc., operating out of Lambert Field, St. Louis, will serve your charter needs admirably. Write them for information, P. O. Box 12, Lambert Field, etc.

Personal Pilot Information:—

McFarland Field—*Springfield. (Cl. 1)—El. 1310 feet; 2 turf strips, NE/SW, NW/SE. Wind cone. Obstructions—poles, SW. 4 hangars, 73-80 Octane gas, minor repairs, tie-downs, modern rest rooms, refreshments. Taxi to city 4 miles SSE. (Tulsa Chart)*

Queen City Airpark—*Springfield. (Cl. 1)—El. 1367 feet; 3 turf landing strips, N/S, NE/SW, NW/SE. Navigational facilities—boundary lights, rotating beacon, flood and obstruction lights, circle and name on roof, lighted wind cone. Obstructions—trees, NW; house, N: tower, S. Hangars, tie-down, 73 and 80 Octane gas, repair, 24-hour service. Modern rest rooms, refreshment and luncheon service. Taxi to hotels or cabin accommodations in city 2 miles E. (Tulsa Chart)*

CAA Intermediate Field—*Lebanon. (Cl. 1)—El. 1380 feet; 3 sod strips, N/S, E/W, NE/SW. Wind cone and Tee, rotating beacon, field markers, airport circle. Obstructions—Pole line, E; House and trees, E, SE, farm bldgs. W: beacon. NE. 80 Octane gas, minor repair, tie-downs, refreshments. Taxi to city 2.5 miles SSE. (Tulsa Chart)*

(Continued on page 70)

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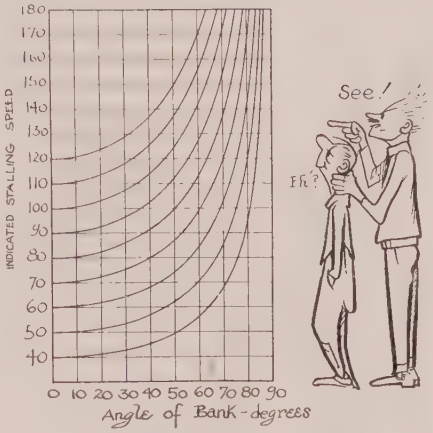
Dilbert's Last Buzz or
"How to make the obituary in one try"

DILBERT

By S. H. Warner and Robert C. Osborn

SPEED IN TURNS— Treat a stall-spin accident as you would the plague—stay away from it. The record shows that a large percentage of these accidents result from loss of flying speed in low-altitude turns.

Everyone knows that stalling speed increases in a turn, but few know exactly how much. The aerodynamics experts have a figure for it. They get it from the following two formuli:



Personal plane stall chart

a. The stalling speed of any airplane varies as the square root of the applied acceleration ("g");

b. In a steady turn, the acceleration is equal to the natural secant of the angle of bank; therefore, the stalling speed varies as the square root of the natural secant of the *angel* of bank.

With this latter formula, the stalling speed of any airplane can be determined for any angle of bank. The results for aircraft with certain stalling speeds are plotted on the accompanying chart. By interpolation on the chart, or through further application of the formula, curves for other stalling speeds can be prepared. (*See chart above.*)

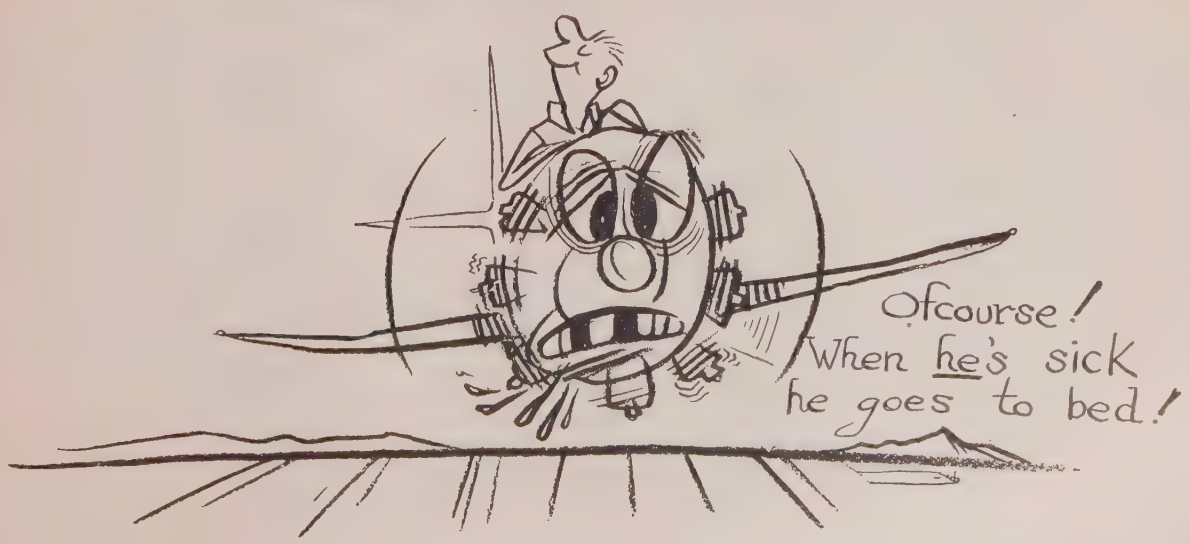
To use this chart, just pick out the stalling speed for any angle of bank on the curve of the level-flight stalling speed of your particular plane. Of course, you *must* know your level-flight stalling speed. And remember, *that* doesn't remain constant. It is higher when flaps are up. It increases with heavier loads, also with an increase in air temperature, or a decrease in air density (at altitude). A slip or skid further increases the speed at which you stall. Also, the formula and resultant curves apply *only* to perfect, ball-in-the-center turns.

You must learn to judge your angle of bank accurately. Errors of five or even 10 degrees are not serious in shallow turns, but as the bank is increased, the stalling speed rises very rapidly. Note the high speeds required to keep from stalling in steep turns.

Since speed is reduced in a climb, a climbing turn is a further complication, one to be avoided until you are thoroughly familiar with your plane.

This is particularly true (*Continued on page 62*)

"Dilbert gets caught sitting up with a sick friend"



Ferrying For Fun...

(*Continued from page 20*)

become lonesome or bored, and each pilot can take his turn at navigating.

We had just three of the 30-odd yellow trainers that took off that day from Cub Haven, but ours was one of the longest of delivery flights, covering 11 states and half of Texas. Down the Susquehanna River Valley from the factory, a generous tailwind boosted us along at 100-mph ground speed.

Since the 12-gallon gas tank of the trainer isn't the ideal thing for cross-country travel (as we later found out in Texas), we landed for a refill at Pittsburgh's Pitcairn Airport. We always tried to stop at the smaller, outlying fields, since none of the three trainers were radio-equipped. Experience showed that small fields gave much quicker refueling service than municipal airports, which couldn't be bothered with a 6- or 7-gallon gas sale to a *Cub*.

We pulled up for the first night at Richmond, Indiana, following a gas stop at Newark, Ohio. Richmond was typical of many mid-continent fields; 5 miles and $1.50 taxi fare from town, no eating or sleeping accommodations on the field, and no hangar space, but it did have a CAA Weather station on the field.

Early the next morning, we couldn't see the 300-foot radio tower atop the hotel, so we indulged in a leisurely breakfast and sauntered to the field after the Weather Man dubiously called a 1,000-foot ceiling and scant three-mile visibility through a powdery rain. Indianapolis, Terre Haute, Effingham and St. Louis rolled slowly beneath the wings as we bucked a stiff 20-mph headwind. At times we flew as low as 100 feet across open country to escape the worst of the headwind. At these low levels, there is usually a ground cushion where friction slows down the wind.

St. Louis on a Saturday night! We checked hotels by phone from the Park's Air College field across the river from town while the three ships were being gassed. No rooms! With a scant hour of sunlight remaining, the Park's field manager suggested that we'd have more chance of getting rooms at one of the three little fields grouped 25 miles west of town. We took off and climbed out over the broad Mississippi River into the gathering dusk of a blood-red sunset. Transcontinental highway #40 borders the Meramac Airport, and a neon sign blinked "cabins" not 100 yards from the hangar. As we circled the field we could read "eat" on an adjoining sign, so our troubles were over. The steaks were a credit to the cattle country and the accommodations quite adequate. This was the only field on the whole trip where we found overnight facilities within easy walking distance. Most airports had extensive plans for "Skytels" but material shortages had prevented their completion at any of the fields we saw.

Navigation across Missouri is a cinch. The double hand of highway #40 stands out like a skunk at a garden party and our three *Cubs* had no difficulty until we decided to cut corners and leave the beaten path. After landing at Rolla and Springfield, we detoured through the beautiful Cherokee Lake section of Northeastern Oklahoma, many miles from the main highway. The hop from Springfield, Missouri to Claremore, Oklahoma was too long for the headwinds we encountered, so we landed in a cow pasture near the little town of Jay, Oklahoma. Before the second of our three ships had stopped rolling, half a dozen cars had driven the mile from town, and we had no difficulty in getting a ride back for automobile gas. We dumped 5 gallons of white auto gas (ethyl burns too slowly for aircraft engines) into each tank through a chamois skin, shoo'd the cows off the pasture, and headed for Claremore.

After an overnight stop at Shawnee, Oklahoma, where the Navy has turned a beautifully paved field over to civilian use, we headed south toward the low country of Texas. Our two accompanying *Cubs* stopped to visit friends, but we were overdue on a job in California, so we headed out alone. Oil fields and cattle ranges rolled by and the towns and airports became fewer.

Duncan, Oklahoma, Wichita Falls, Seymore and Sweetwater, Texas, passed before complete darkness caught us again. Avenger Field, former home of the WASPS in Sweetwater, is a spacious field with plenty of hangars and the best of service. The day after we arrived home, a postcard arrived from Avenger Field, inviting us to stop again on our next trip through Texas. That's what you call good salesmanship!

Again a planned early morning take-off was delayed by rain squalls and high wind. The ceiling lifted a bare thousand feet and we gingerly wheeled the little *Cub* out into a gusty 30-mph wind. Had it been a head wind, the *Cub* would have stayed in the hangar, but 30-mile tailwinds East to West across Texas are too good to miss. Almost as soon as the mechanics on the taxi strip let go the struts, we were in the air. Our ground speed to Odessa was slightly over 100 mph.

The wind calmed as the day progressed and we followed the airways and a diminutive pipe line toward El Paso. We saved nearly 100 miles by going airline, but we were crowding that pint-sized gas supply to an embarrassing point. A combination gas station, general store and post office passed below at Orla, Texas, midway between Pecos and Carlsbad Caverns, New Mexico. There were no telephone wires adjoining the road, so we landed, and taxied up to the gas pumps. The service station attendant didn't seem surprised. There had been another plane in for gas less than a month before.

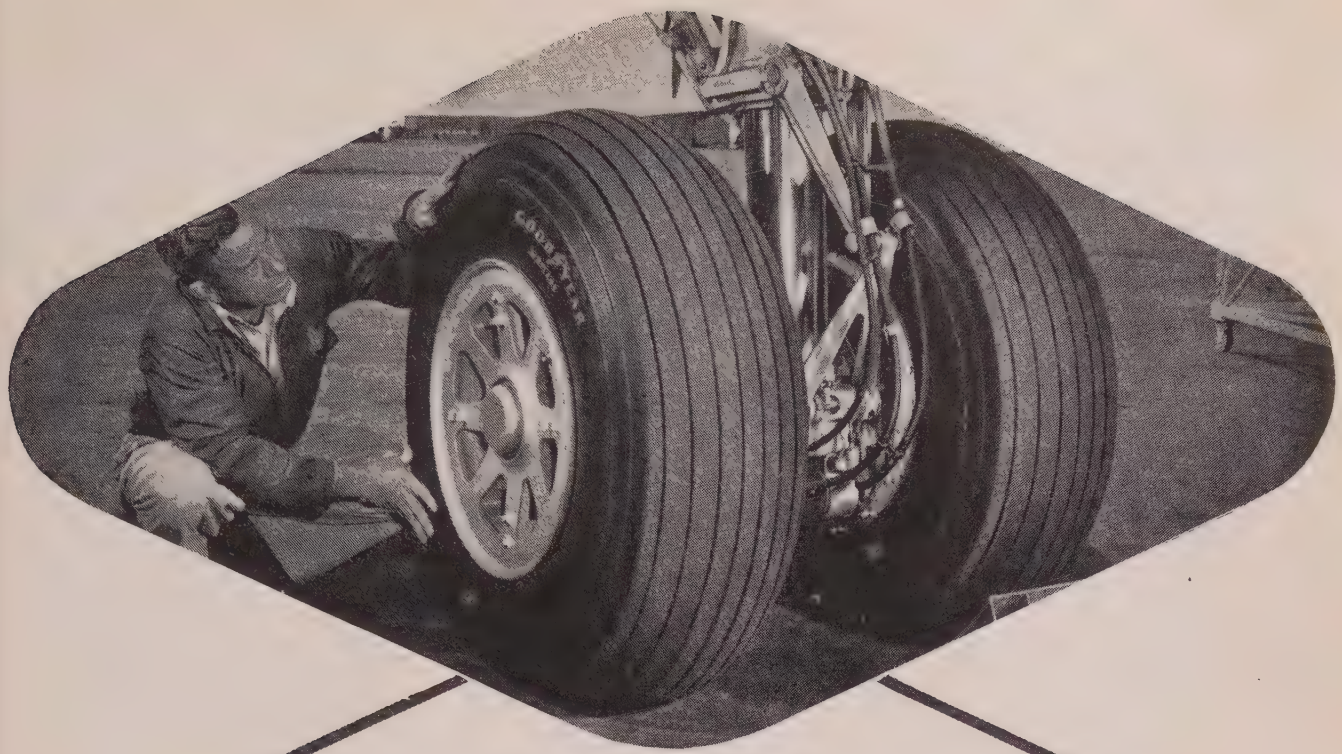
We took off from the narrow highway and headed for El Paso. Over the desert in summer months, the air is normally quite turbulent and this day was no exception. On one occasion our lone suitcase and all loose maps floated to the top of the cabin as we hit a hunk of rough air near Guadalupe Peak, the 8,750-foot landmark east of El Paso.

The Municipal field at El Paso has a good lunch room with ice cream, cold drinks and sandwiches, but flying into a large field without radio is not good practice. When we returned to the *Cub* after lunch, there was a memorandum from the control tower ask-

(*Continued on page 50*)

"No, No! Not your tail up. . . !"

CREWS



Safety Choice

on the new Douglas DC-6

Safe landing gear is just as important on your private plane as it is on a huge 52-passenger airliner. So take a tip from Douglas Aircraft Company's new DC-6. These big five-mile-a-minute aircraft are the newest and finest postwar commercial transports, embodying the latest advances in aviation science. And they're equipped with Goodyear's light, super-strong, magnesium-alloy wheels, Goodyear's time-proved self-adjusting Single Disc Brakes and Goodyear tires, for the same reasons you should specify them: utmost safety and dependability in take-off and landing runs. You'll find many new private planes are equipped with Goodyear landing gear, a plus that means a lot. Airport dealers everywhere sell and service Goodyear products; or write: Goodyear Aviation Products Division, Akron 16, Ohio or Los Angeles 54, California.

GOODYEAR
AVIATION
PRODUCTS

DC-6 in flight

MORE AIRCRAFT LAND ON GOODYEAR TIRES THAN ON ANY OTHER KIND

Desert Hospitality

(*Continued from page 25*)

long before the four Army boys, released from the Service, also converged in Tucson. Chance brought them together with the Mitterlings, and their dreams for an ideal airport began to shape up. While the Mitterlings took on the operation of the cottages, hostessing, and providing the air guests with all kinds of homey and dude ranch comforts —from tourist information to horseback riding arrangements—the four ex-servicemen formed a small organization which they called Skyriders, Inc. They were to take care of the aerial traveler's mechanical well being. Orlando Miller became president of the organization, Duane, vice presi ent, Jim Golden was put in charge of maintenance, and Eugene Steinheimer took on Sales.

For charter the boys soon built up a fleet of seven Funks and one Ryan PT. Duane Miller took charge of the joy rides and charter flights, and his brother Orlando undertook instruction. Soon, however, the list of students increased to such a figure that two more instructors had to be hired.

Without fanfare or advertising, but by word of mouth the fame of the hospitable little airport grew. Soon, additional cottages were opened and a restaurant was laid out. Sack upon sack of cement and various shiny fixtures were purchased for the swimming pool presently being built. A 2,400-foot N/S strip and a 2,800-foot NW/SE strip were macadamized. Repair shops were working full blast. And so it goes today.

Not only does the Wagonwheel do a lot of good for the traveler, it benefits the countryside as well, for the air arrivals go to town for shopping, etc. People who stay at the Wagonwheel go away pleased and tell other people. Once more American individual initiative has triumphed. Be sure to stop by at the Wagonwheel, you'll like what they're doing there.

Technique of Slips

(*Continued from page 27*)

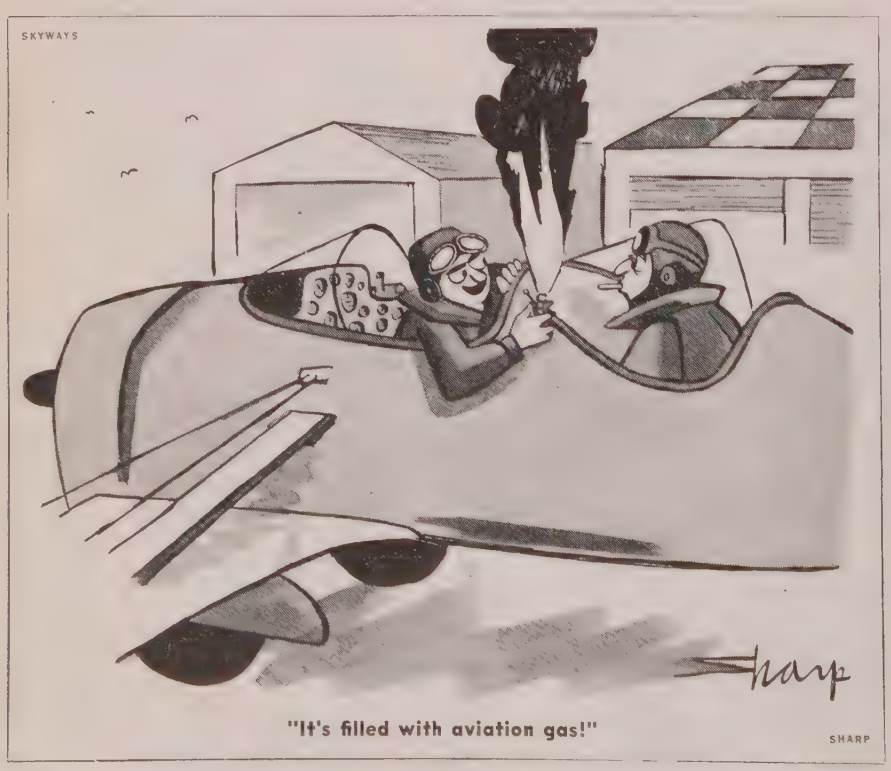
longitudinal axis will remain approximately parallel to the original flight path; the nose above the horizon and the airspeed perhaps slightly less than in a glide. Rate of descent and change in flight path will be determined by the degree of bank used.

Even against full rudder pressure, most planes will have a tendency to turn in the direction of the slip (toward the lowered wing). In some types this may be corrected by easing the stick forward slightly (never enough to lower the nose more than in a glide). Further back pressure, on the other hand, will only aggravate the turning tendency and result in a steep, slipping turn. In certain aircraft it is impossible to maintain a true sideslip for more than a few seconds without turning. In these, a gentler sideslip must be used.

Recovery is essentially the same as from the forward slip. Some speed is always picked up as the braking effect of the fuselage is lost. Sudden neutralization of the rudder will allow the nose to drop, causing excessive acceleration. Or incautious use of the aileron may bring about considerable yaw. Careful coordination of control pressure is necessary in order to avoid these pitfalls.

The slipping turn—or turning slip—as its name indicates, is simply a turn with insufficient rudder pressure for the amount of aileron pressure applied. This results in a turn of smaller radius than if coordinated and in a loss of altitude in direct ratio to the degree of bank used. It is often used in turning onto the final approach to lose excess altitude. If the plane is still too high after rolling out, the forward slip is used.

Properly performed the slip is one of the safest maneuvers the pilot can resort to when his judgment has placed his plane in an awkward position for making a field. Don't abuse it and you won't over-use it.



Ferrying For Fun...

(*Continued from page 48*)

ing us to please make a left-hand traffic pattern around the field (and we'd followed an American Airliner into the field on a right-hand pattern!). But the tower gave us the green light and we shook the dust of Texas from our landing gear without further trouble.

The airway to Columbus, New Mexico, follows a railroad track barely three miles north of the International border. As far as we could see, there was nothing but desert sand, sagebrush and an occasional red volcanic cone. It was hot and the air was rough.

At Columbus we paid an all-time high for gasoline—35¢ per gallon! There is so much air travel over this forlorn desert airway that a service station operator in Columbus finds it profitable to keep a man at the CAA emergency field to supply gas to transients.

At our request, the CAA Weather Forecaster teletyped ahead to Rodeo, an hour and a quarter by *Cub*, to make sure there was fuel on the field. In uninhabited country, it isn't wise to pass any airport without refueling, specially in a trainer.

We hoped to make Tucson, Arizona, that night, but cross-country flying differs from driving. It isn't too safe to go barging around strange mountains after dark in a single-engined plane, so we landed on a highway near a railroad town called Benson, Arizona, and tied the *Cub* down beside a service station. The CAA normally frowns on highway landings, but in the Far West where gas stops are scarce and there are normally no wires, they class these landings as "emergency." And when that gas gauge is bouncing on the bottom, it is!

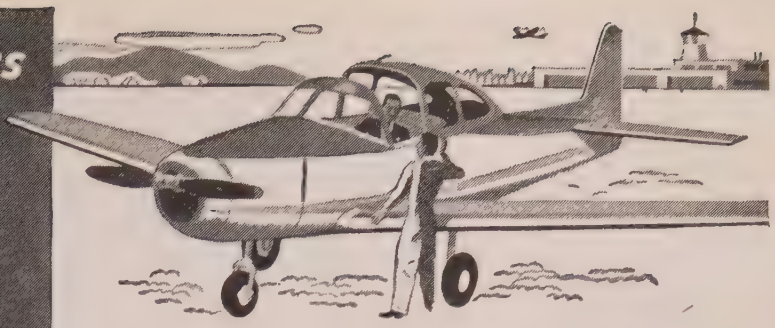
On the last day of our flight we landed at Case Grande, Dateland, Desert Center, California and Riverside for fuel. At Dateland, a huge nearly abandoned Army training base, a skeleton crew maintained the buildings, but no service was available. The Arizona desert is dotted with fields of this type; mammoth landing strips that any city would be proud to call its airport, and not a house within 20 miles. Airway maps make no designation of fields that are abandoned, and the pilot who plans to land for gas can easily get in trouble if he hasn't enough fuel to make the next town. At gas stops, a ferry pilot should always check with the local airport operator and ask about the airports further along his route, local weather conditions that would not normally show up on a teletype sequence, good places to eat and towns with excessive hotel and taxi rates.

Perhaps it was because we were getting close to home, but the flight up the Colorado River from Yuma to Blythe was particularly beautiful. West on the horizon, the peaks of Mt. San Jacinto and Mt. San Gorgonio rose over 11,000 feet to meet the sky. Our plane seemed dwarfed as we flew between them.

We delivered the trainer to the Montebello Airport near Los Angeles. The other two ships, piloted by men with 100 and 200 hours total flight experience, were delivered without incident, too.

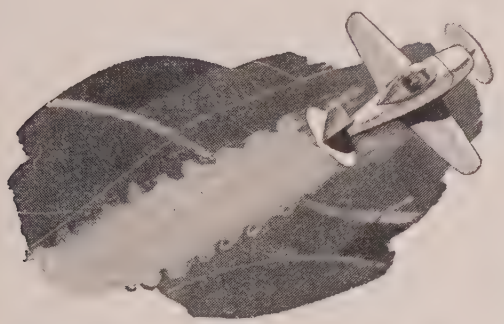
For a never-to-be-forgotten vacation easy on the bankroll, plan a ferry flight this summer. Even in the slowest plane, it's a front-row seat to view these United States.

STANDARD OF CALIFORNIA'S PLANE FAX



A page of service tips for private flyers and fixed-base operators

Vapor lock possible when at high altitudes



Since each thousand feet of altitude lowers the boiling point of gasoline two degrees, light fractions which should be very well behaved on the ground can cause vapor bubbles in fuel pump lines or carburetor and stop the engine as effectively as an empty gas tank. To prevent this, Chevron Aviation Gasoline is blended with a careful selection of hydrocarbons to make sure it's perfectly balanced to give easy starting on the ground, dependable protection from vapor lock aloft.

How to keep an idle engine in good health

Protecting your engine from deterioration during periods of idleness is primarily a battle with moisture. It is a good idea for pilots who do not fly frequently to help prevent bearing corrosion, and the damage caused by rust, too, by running the engine briefly or turning the propeller through several revolutions every week. RPM Aviation Oil contains a corrosion inhibitor which, combined with its basic anti-rust qualities, prevents damage to idle engines. Yet, even with this excellent protection it is good practice to turn engines over frequently to maintain an oil film on all vital parts.

How to keep spark plugs from sticking

Many operators find that spark plugs stick so that they are damaged in removal. This is due to the tendency of many greases to oxidize at high temperatures causing seizure of the threads. Attempts to remove the stuck plugs may cause damage to the entire cylinder. This difficulty can be prevented by using RPM Aviation Grease No. 3, a mica-base lubricant for use under the high temperatures reached by aircraft-engine spark-plug threads.

CHEVRON NATIONAL CREDIT CARDS are good at airports throughout the United States and Canada. Ask your Standard Airport Dealer in the West... or write to Standard of California, 225 Bush St., Room 1618, San Francisco 20, Cal.

Pilot's Report

(*Continued from page 31*)

Also, when they need to set up a road blockade to stop a carload of fleeing bandits, a Northrop *Pioneer* with 30 men aboard armed with machine guns would nicely fill the bill; but just as the F.B.I. and most law agencies have settled on the .38-caliber revolver as the most likely all-around sidearm, so does the L-5 seem the best suited to a county sheriff's all-around requirements.

I *know* that a *Cub* will get off quicker and land shorter in the hands of the right pilot. But experience has also taught me that the *Cub's* 65 to 70 mph and its light weight construction is a handicap in the mountains.

With the L-5, a heavier airplane and very solidly constructed, you can bull your way through a mild storm front, and perhaps even ride out a western line squall. But it's strictly from terror in a *Cub*. I'd crash land a light ship before I'd tackle a line squall and some of my life's worst centuries of mild panic (where you just foam at the mouth and not the ears, too) have been spent flying through the first 20 minutes of a turbulent storm-front coming up a river valley.

The L-5 adds positive on that score, too, then.

Actually, when it came to split-second marginal performance in my limited flight experience, there's no field behind me that the *Cub* J-3 didn't give the best marginal performance on. But the L-5 will do almost as well on that short, rough stuff and it still has the weight and solidity and the extra speed you need for X-C flying, too.

Take that day last fall when we went out of Salmon City, Idaho, to Stanley Basin and over Galena Summit with two heavy men in a J-3 *Cub* after warming up 15 minutes in the zero weather and not topping the gas tanks—brrrr. . . !

We got carburetor ice all the way and used the heat constantly. That upped gas consumption dangerously and we had no way to lean the mixture. We actually flew about 140 miles in calm air. We were aloft for 2 hours and 10 minutes and we landed in a grain field next to the Sun Valley Lodge with about 3 quarts of gas and mild hysterics. With an L-5 we still would have had a three-hour maximum rated range, but on reaching Ketchum could have gone on to Dooding, Shoshone, or even Burley if necessary.

If the air had been rough, the time lost would have forced the J-3 down at Stanley between three-foot banks of snow plowed on the highway.

Now, that same added range is available in the Cessna 140, the Luscombe 85, and related aircraft. But, I can't see myself, my rank of pilot, that is, taking either of those metal jobs out of the Sun Valley wheat field and over the high tension lines north of the rodeo grandstand unless the sheriff was already shooting at me. With a *Cub* it wouldn't even be marginal operation. With an L-5 it's downright fun to fly that kind of stuff. With the others—it's no place for an amateur.

You will have noticed that we studiously avoided mentioning a few airplanes. With apologies to the exceptions, that was intentional.

I'd let the sheriff shoot and be damned before I'd try a Culver V on that Sun Valley deal, and if I ever got an 85-hp *Swift* in some of the places I go intentionally with a *Cub* or an L-5, I'd hit the silk, if there was time.

Some airplanes just won't fly in the mountains and that's a pair of them.

Let's take the Culver first. What's wrong? The answer is simple and yet complex. It is underpowered. Now there is a word that means nothing in aviation—when you come right down to it, the V-2 rocket is underpowered. So are the P-47, the B-29 and the J-3 *Cub* trainer. Also the L-5.

But some airplanes fly and some don't! Operators will rent *some* airplanes to any pilot that comes along, even a guy like myself who he knows is going to try and land it on the grasshopper flats where "they found the body."

There are *other* airplanes that the operator won't rent to his own copilot unless it's been insured. And that's how it is.

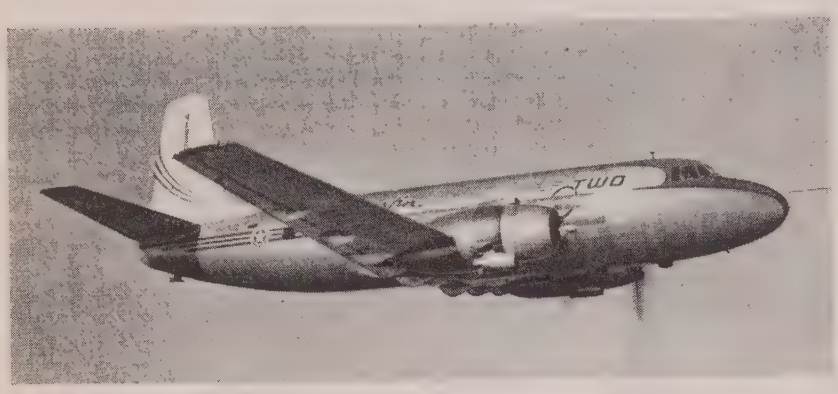
I have a friend with 1,200 hours in the past six years of private flying. Most of it is cross-country between his ranch at Nyssa, Oregon, and his construction business at Salt Lake City. He has also flown from coast to coast on business and is considered a better-than-average private pilot, with more guts than a government mule.

One thing he is not afraid of is an airplane.

He bought a Culver V. While it was still almost new he walked into an *Ercoupe* dealer

(*Continued on page 74*)

Three Post-War 300-MPH Airliners



MARTIN 2-0-2 provides airlines with twin-engine high-speed air transport especially designed for safety and economy. It seats 30 to 40

CONVAIR 240 is America's first 300-mph twin-engine, pressurized and air-conditioned, 40-passenger airliner using jet exhaust boost for increased speed

DOUGLAS DC-6 is high-speed de luxe version of DC-4 with larger engines, pressurized cabin. Deliveries have been made to American and United

,00 in Ercoupes

If you would like a trial flight in one of these certified spin-proof planes, you may have one without obligation at the dealer airport nearest your home. The ERCOUPE distributors listed alongside will direct you to the dealer in your territory.

ERCOUPE is a two-control, spin-proof plane that makes flying safe and easy—its two controls are a steering wheel and a throttle; no footwork in flight. It carries two people and luggage over 100 miles in one hour on five gallons of gas. The ERCOUPE is highly maneuverable; has tricycle landing gear which is ideal for rough terrain and its all-metal construction means low maintenance cost. These fine planes are selling for $3450.00 f.a.f. as of April 10, 1947.

All entries must be addressed to SKYWAYS-ERCOUPE Contest Editor, Henry Publishing Co., Room 3708, 70 E. 45th Street, New York 17, N.Y.

CONTEST RULES

1. In case of tie, a duplicate Grand Prize will be given to each winner.

2. All entries will be carefully judged as to originality, uniqueness of idea, sincerity of expression, logic of argument and neatness.

3. The prizes consist of three new ERCOUPES. One will be given for the best letter on each theme: "Why I Want To Own An ERCOUPE;" "What I Consider Ideal Features in a Personal Plane;" and "What I Consider Requisites of a Private Pilot."

4. The judges are Fred E. Weick, V.P., Engineering and Research Corp.; J. Fred Henry, publisher, SKYWAYS; and Charles B. Strauss, V.P., Dorland Internat'l, Pettingell & Fenton, Inc. Decision of the judges will be final.

5. There is no limit as to number of entries for each contestant and each may try for all three Grand Prizes.

6. Letters must be accompanied by an entry coupon as shown on this page or a reasonably exact facsimile thereof.

7. Winning contestants must accept f.a.f. (fly-away factory) delivery at Engineering and Research Corp., Riverdale, Md., within thirty days after notification that they have won.

8. Contest open to everyone except employees of Henry Publishing Co., Engineering and Research Corp., and their advertising agencies.

9. All letters and their contents become the property of the sponsors.

10. Winners will be notified individually and full announcement will appear in the first available issue of SKYWAYS.

11. There is no limit on number of words used in letters.

12. Both entry coupon and letter are to be mailed to SKYWAYS-ERCOUPE Contest Editor, Henry Publishing Co., Room 3708, 70 E. 45th St., New York 17, N.Y. All entries must be postmarked no later than midnight, August 15, 1947, closing date of contest.

ENTRY BLANK

SKYWAYS-ERCOUPE Contest Editor
Henry Publishing Co.
Room 3708, 70 East 45th St.
New York 17, N. Y.

Enclosed is my entry to the SKYWAYS-ERCOUPE Contest. My letter is for the Grand Prize No. One ☐ Two ☐ Three ☐ (Please check).

Name_____

Address_____

City_____ Zone____ State_____

Send Your Entry Today

"Who cares if it's outa season—but how d'ya cook the durn thing!"

BASSO

Try Beach Landings

(*Continued from page 38*)

The edge above this second area can be defined by a "debris line" beyond which will be found the third area where lies the heavy driftwood that has accumulated through the years, and which will be carried no higher by any normal tides. Here are the logs, the large crates, the oil drums, etc. Here also the sand usually begins to slope upward again. It becomes loose and soft, forms into drifts, small dunes and rough furrows. Beach grass begins to appear, and wheel and foot marks leave only vague impressions in the shifting sand. This is the danger area for aircraft operations. *Stay away from it!*

If you're out for your first beach party by air, arrange to go at low tide. Pick out a wide portion of the hard beach from which the tide has receded. You can be sure it will be hard enough for your use. The wider and the more level the better. Drag it to make certain there are no hidden obstacles and then—land.

Taxi to the beach above the high-tide mark, and try a take-off from there. If you can get off okay, land again, and you can safely sit out any tide—whether high or low.

If you can't gain flying speed on the softer sand, and can't wait for the next ebbing tide, get back on the hard portion and take off before the tides erase your strip. Try again some other place.

Your first time out, take it easy until you get to know the make-up of the beaches, and how your own plane does on the sand. Eventually you'll be able to tell from the air where to operate.

Any area you can take off from, you can be sure, will be okay for landings. But remember that while your landing run will be shorter than usual, your take-off run will be longer, so give yourself extra room.

This doesn't mean that you can't successfully use the wide area above the high-tide mark for both landings and take-offs. The author has done it. Gorski's beach parties always used this area, and so have many others. But go for a sure thing first, even if it means sandwiching your parties between the tides.

There are various places to check the tides. An old timer from a Coast Guard life boat station suggests that coastwise pilots should figure on beaches as everready forced landing areas anyway, and "It wouldn't hurt for 'em to always carry a set of tide tables."

Another tip from this veteran: If the calendar says full or new moon, don't get caught parking with the spring tides coming in (no matter how pretty she is), even above the high-water mark.

No two beaches are alike. Nor are the three general areas of beach mentioned here always easily identifiable. The east-coast Florida beaches, ideal air strips, frequently have no clear tidal lines. They are highway hard, wide, and have a minimum of slope.

Some beaches have vast "tidal flats" adjacent to them uncovered by water except during the spring tides. These make some of the world's finest natural airports. But be sure they're sand, not mud flats.

Some beaches can never be used. They are generally the narrow beaches with steep slopes between the high-and low-tide marks. Beaches not directly on the ocean front, in bays, etc., vary in suitability, but are generally not as good.

(*In this article we speak only of sand beaches. Gravel or pebble beaches are not considered. A scattering of pebbles on a sand beach, however, makes no appreciable difference. The use of fresh water lake or river beaches is also not considered here. Not affected by the ebbing and flowing of tides like ocean beaches, they have no wide, hard packed tidal areas, and consequently are not generally usable.*)

When you're looking over a beach from the air, fly as low as you safely can. After you've checked as closely as possible the slope of the hard area, and the apparent hardness of the higher, more level beach, check carefully for debris, obstructions, washouts, and anything else that could embarrass a landing.

Beaches accumulate everything from broken hulks to beer bottles. Make sure your area is clear. When you've picked it out, check it with a landmark you'll be sure to recognize as you land—and then land in the area you have dragged.

If you land next to the water remember (where a groundloop one direction would be into the water) *don't* catch a wheel in that thin layer of water that scampers up the beach just about the time you land. It will try to watercock you into the waves. If you're on a slope, there will be some tendency to turn down-slope anyway. Catching a wave is usually not serious, but it will aggravate this tendency. So maintain complete control of the plane after you're on. Use power, if necessary, and be ready to turn away from the water.

If you land on softer sand, your problem will be little different from landing on your own airport. If you're accustomed to adapting yourself to the changing conditions of a sod field, you'll have no trouble on a beach. If you know enough on a muddy field to come in three points, nose up, keeping on a little power, you'll know enough to do the same on the beach. The sand will slow you up like a thick growth of grass or moderate mud conditions. Make your tail reach for the sand, apply a little power after you hit to keep the tail down, and you'll have no trouble.

"Speed" Hanzlik, the old timer who is host at Flushing (N. Y.) Airport, has a gripe against modern pilots on this score. "Speed", who has landed on many Long Island beaches, says, "Pilots are landing on their wheels too often. Many times—like on a beach—they'll have to make three-point landings, very slow, with just a little power. They should practice that way right along."

(*Continued on page 58*)

ANNOUNCING TWO NEW 4-PLACE CESSNAS!

The 195 Top Speed Over 180 M. P. H. Cruising Speed Over 165 M. P. H. at 7,000 ft. Usable Range Over 700 Miles. Luggage Capacity up to 200 lbs. with 4 passengers and full tanks of fuel and oil.
300 H. P. JACOBS ENGINE

The 190 Basically the same as the 195: All-Metal with Tapered Cantilever Wing, Electrically-Operated Flaps, Luxurious Appointments—Offers Comparable Performance with a
240 H. P. CONTINENTAL ENGINE

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Now Cessna offers the two finest airplanes in the 4-place executive-type field . . . planes which will take you, your top executives, your trouble shooters to any part of the country without a worry about schedules and connections.

They're big, fast, luxurious . . . *yet surprisingly economical to own and operate.* Like all Cessnas, the new 195 and 190 are safety-engineered to give you *more for your money.*

Both are all metal, and equipped with Hamilton Standard Constant Speed Propellers. Both have the famous Cessna Tapered Cantilever Wing—the same clean wing design as their forerunner, the Cessna Airmaster—3 times judged the World's Most Efficient Airplane. Electrically-operated flaps provide safer landings. 3-piece, easy-access cowl and hinged engine mount reduce maintenance time and costs. Sealed bearings on all control surfaces insure smooth, easy action. Both offer ultra-violet instrument lighting, improved sound-proofing, many other "extras." Ideal for charter use. See your Cessna dealer now.

Plenty of room for four to stretch their legs and relax. If you travel light, you can carry *five* with complete safety. Foam-rubber seats, fine upholstery and carpeting add to luxury and comfort.

Up to 200 lbs. of luggage . . . everything 4 people need for an extended trip . . . fits easily into the luggage compartment. Separate, low-level door in fuselage for convenient loading and unloading.

Cessna's patented, safety landing gear permits smooth taxiing over even the roughest fields . . . absorbs landing shocks . . . combats ground looping tendencies. No moving parts to require maintenance.

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Luxurious, 2-place, cross-country planes at light training plane prices. Over 120 m. p. h. top speed—450-mile range—15,500 feet service ceiling. All-metal structure. Full-range flaps on the 140. Only $3245 and $2695 (f. o. b. Wichita).

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Try Beach Landings

(*Continued from page 56*)

Generally you'll have a cross-wind; an on-shore breeze is usual during the daylight hours. But this works out very nicely because if there's a slope to the beach, the cross-wind that makes you put your seaward wing down will also keep your wings parallel to the beach's slope.

Speaking of winds, if the weather's picking up, and it looks like a storm, remember that your wind will probably be a cross-wind on the beach. Go someplace else.

If you pick a strip close to the water to land on, here's a tip from Bill Strohmeier, a 5,000-hour man and small-plane enthusiast. Strohmeier, who figures he's made 500 beach landings if he's made one—and never had a bit of trouble, suggests that you'll make your first beach landing easily if you develop precision control at home by landing and trying to hold a straight heading within 10 feet of the edge of your home runway.

On take-off, the same general rules apply. To take off from soft sand like you landed on, let your tail wheel get off the ground because otherwise it will act as a brake. Keep it low, and take off nose high. If you take off from hard sand, you can afford to drop the nose a little lower in the interests of better visibility.

One landing-take-off combination that works well is to come in on the wider area above the high-tide mark where a full stall, power-on landing will make for safety in the softer sand and where there is not the mental hazard of being pulled into the water. Then use the narrower hard surface, close to the water, for the take-off when you need the hard surface to gain speed and when, at the same time, you have better directional control.

Or do your swimming at high tides, and your flying before and after.

Once you're on the sand, park away from the water's edge. If you feel like wandering off, remember how easy it is to dig your toes into the sand as the water comes up with the tides, and how soon you're down to your ankles. Let your plane play in the surf like this, and you'll soon have a dredging job on your hands . . . besides corrosion problems.

While we're talking about salt water, remember that most small planes are not protected like seaplanes against salt-water corrosion. Don't be splashing through even the smallest waves. You'll be sorry days later when things begin to rust. If you can't help it, take early action to wash the wet surfaces with fresh water, and protect them.

If you're interested in spending the night, take some rope along. Dig a hole at each tie-down point, lay a log in each, secure the tie-down line to the log, cover again with sand, and you'll be snug and safe. If you're ever forced down on a beach, be sure you do this before you go for help. And pull the plane to a spot as high and dry as you can.

The choice of a plane counts in planning beach parties. The plane with a light wing loading and fat wheels is the best. But Daytona Beach, Florida, was for many years the scene of speed-trial runs by racing cars with heavier tire loadings than most planes. A charter airline uses the tidal flat beach at Ocracoke Island, N. C. (*See Skyways, February Issue*), as its landing point for a service to that isolated island and uses twin-engine *Cessnas*. Ed Gorski once landed and took off a fully loaded tri-motored Fokker transport from above the high tide mark of the beach at Roanoke Island, Va. The sands of Old Orchard Beach, Maine, were the jumping off place for early trans-Atlantic tries by planes weighted down with gas. And there's Honeymoon Isle (*see page 32 this issue*).

But with heavy planes, take it easy. Pick a hard, wide beach to start experimenting on. It may help to deflate your tires a third —this goes as well for lightplanes without balloon tires on soft beaches—but if you do, be careful with your brakes so you don't pull the inner tubes out. In most cases a tail wheel will act as a sufficient brake in soft sand. But get it on the ground first, before the front wheels—and keep it on.

Duke Krantz, chief pilot for Bendix Aviation, and for many years pilot of the *New York Daily News* Waco likes to count on only the hard-packed sand to use. But he's landed for news stories on soft sand too, even with the Waco. Landing and taking off from the soft portion of the beach at Musgrave Harbor, Newfoundland, when tide covered the hard portion, enabled Duke to scoop the country with pictures and interviews with Dick Merrill and Harry Richman after their "Lady Peace" was forced down in a nearby bog in 1936. Ironically, "Lady Peace" had

taken off from a wide English tidal beach, Southport Sands, near Liverpool, on its return flight to this country, and when it was later repaired and dragged from the bog to the same beach where Duke had landed, took off without trouble.

Duke thinks beach parties by plane are a practical thing too. "Caution is the main thing," he says, "But I have seen lots of beaches — all over the place — that would make beautiful landing strips."

There are other uses for planes at the beaches. Fishermen flying to beaches on the North Carolina "Outer Banks" for surf fishing can spot channel bass, singly and in schools, from the air, and land alongside. Bill Strohmeier recalls the time, when flying to an isolated Florida island, he spotted from the air a group of sting rays in the water that would not have been visible from the ground—and his swimming party was detoured away from them.

The author's first personal experience with beach landings came while the Navy was conducting a DDT spraying program for mosquito control at Banana River, Florida. We had to work rapidly when the winds were light and weather conditions favorable. The N2S Stearman converted to spray jets, ate up the time to and from the main station field. So one day we drove the DDT truck down the hard wide beach adjacent to the mosquito-ridden swamps. I landed just short of the truck, reloaded with DDT, and took off from the spot. Eventually we were spending less than three minutes on the sand in each operation. The Stearman couldn't have been happier on a concrete strip.

A beach will furnish its own wind sock. Check the line along the tops of the wave crests, and the white caps. That line will be broadside to the wind, and the whitecaps will be blown away from the wind. Ninety degrees from the wave crest line is your wind.

An amateur ornithologist suggests as an alternate wind sock, any aquatic bird on the beach. It will invariably stand facing the wind, and take off into the wind.

If you're going to land on an isolated beach, make it a party of more than one plane. There is safety in numbers—and more fun as well. Joe may need his prop pulled through, and Betty Jane may need some help on the wings while turning in the sand, or starting a take-off. Let the guy who's done it before pick out the beach, land, and mark off the area. Then if anything should happen—and the Lord is good to those who take precautions—you've got a pal on the spot.

While you're dragging the area, take a look around for the nearest house and the nearest road in case you've forgotten the matches, or need a telephone. Also while dragging the area, take a tip from the Navy —that sometimes you'll think you're higher over the water than you actually are, especially when the water is glassy. So after a low run over a beach, turn inland momentarily and gain some altitude before you turn out over the water for a 180.

There are some areas in which beach landings are prohibited by local regulations. Daytona Beach, Florida, Old Orchard Beach, Maine and Crescent Beach, South Carolina are three: Such restrictions are usually known by pilots in the vicinity. Generally they exist only where there are crowds of people. *And the old timers chorus the warning not to land near bathers or other groups.*

The CAA cites only two regulations that would apply to beach landings. They are from CAR's Part 60 which specifies minimum altitudes over assemblages of people, and the general safety rule against anything that will endanger lives or injure property. Otherwise the judgment is left up to the pilot.

If the owner of a beach property is known, it would be wise to secure his permission before landing. He could possibly raise the issue of "trespassing," but if the pilot is genial and agrees to stay away in the future, the possibility of any legal action is remote.

"Stay away from crowds," Ed Gorski warns, "don't worry people on the ground. Pilots have to learn that."

If you have to get near others on the beach, land short. Taxi up slowly with a hand on the switch to cut immediately. Remember that kids don't appreciate the cut-throat potentialities of a whirling prop. And their parents won't appreciate you either.

But for every word of caution from the old-timers, there are 10 words of encouragement and suggestion.

Practical men, not known for reckless predictions, they know the future of the private plane is in its increased utility, and agree that here is one way to get it.

Owner of Stinson Voyager prepares to take off for week-end vacation flight with family, luggage, and dog.

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Flaps for quick take-offs and slow, short landings . . . built-in wing slots for safety. Inherently spin-resistant. Oleo spring-draulic landing gear for smooth, cushioned landings.

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In the meantime, write for illustrated brochure to Stinson Division, Consolidated Vultee Aircraft Corporation, Dept. C, Wayne, Michigan.

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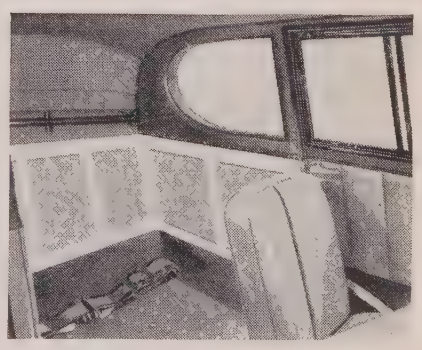


See the Stinson Flying Station Wagon— America's first personal "cargo" plane. Reinforced cargo compartment (24 cu. ft.) in 2-tone plywood paneling, equipped with tie-down straps.

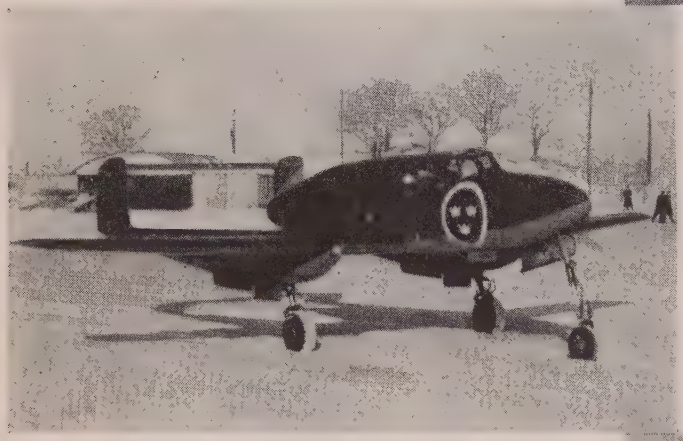
Side-loading baggage compartment offers an additional 11 cu. ft. of carrying space.

Capacity: pilot, full gas tanks, and 552 cargo pounds. Two rear seats can be replaced in 5 minutes to make it a 4-place plane.

NEW... on the wing

WACO ARISTO-CRAFT

Back in the personal-plane picture again, Waco Aircraft displays the *Aristo-craft,* a four-place non-spin plane powered by 215-hp Franklin air-cooled engine with pusher propeller. This ship has just completed its preliminary test flights and will soon go into production



SWEDEN'S J-21-R

The first Swedish jet-propelled fighter plane recently made its first flight in the sky over Norrkoping. No information is available other than it has a speed of well over 800 kilometers per hour (497 mph). Construction of the ship, designated J-21-R by the Swedes, is patterned after the very successful British *Vampire.* Both use *Goblin* turbojets

BRANTLY HELICOPTER

Recently shown for the first time, the new Brantly helicopter seats two and is powered by a six-cylinder Franklin engine rated at 150 hp. Diameter of the rotary system is 28 feet. The fuselage is built up of steel tubing with metal and fabric covering. To date this helicopter has 50 flying hours to its credit. A smaller, all-metal design is now being built

TROJAN A-2

One of the newer personal planes introduced to the U.S. flying populace is the *Trojan A-2,* designed and built out in California. Powered by 85-hp Continental engine, the ship is said to cruise at 120 mph. Take-off and landing speed is reported to be between 40 and 45 mph. Test pilots have commented favorably on the plane's stability and ease of handling

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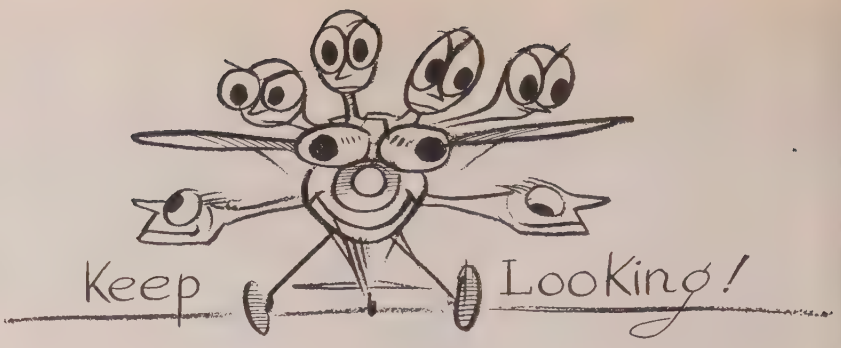


Dilbert

(Continued from page 47)

in low-powered craft. In general, never make a steep turn at low altitude, except in emergency. Make all turns smooth. Know exactly how much speed you need for any angle of bank, and then add a little extra with throttle —as insurance for the wife and kiddies.

LAND PRONTO—Shortly after take-off the pilot noted a drop in oil pressure and some loss of power. He had a 500-hp engine and since it sounded smooth, he wasn't at all perturbed and elected to continue his flight.

Some 20 minutes later, 30 miles from the field, the engine suddenly failed. This occurred over rough terrain and the plane wasn't worth overhauling after the forced landing was completed. Fortunately, the pilot (yes, it was Dilbert) wasn't injured, but his self-esteem sure received a jolt.

Granted, power-plant failure was a factor in this crash. Nevertheless, poor judgment on the pilot's part was entirely to blame for the forced-landing loss of the aircraft. To attempt to continue flight in the face of a malfunctioning engine, except in emergency, is an inexcusable risk for any pilot to decide to take. He should proceed immediately to the nearest emergency field while a deferred forced landing is still possible.

Prolonged flight usually will aggravate engine trouble. Even if a forced landing is successfully executed after complete failure, the engine undoubtedly will be severely damaged.

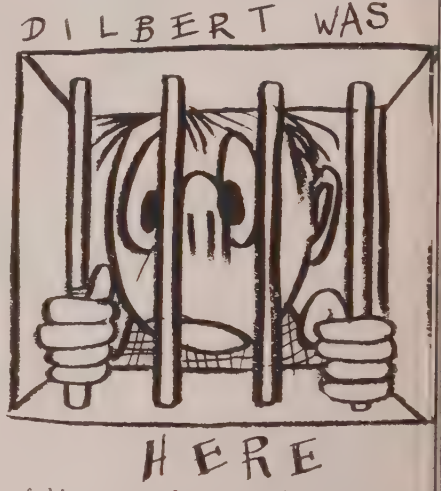
BULININITY—Upon reaching an altitude of 40 feet immediately after take-off, a pilot attempted to slow roll a high-powered plane. He didn't quite make it.

If pilots were expected to be able to do a slow roll on take-off, they would be trained

in that maneuver. And there would be no regulations against it. Some aviators react to flight regulations like a bull does to a red flag. The name of this characteristic must be *bulininity*, since asininity means "having the qualities of an ass."

Snap out of it! Stop and think a moment before lowering your head to charge into one of these regs. It isn't there just to keep you from having fun. It was issued as the resul of thousands of accidents and millions o hours of experience. It represents both hind sight and foresight and is based on the prove limitations of personnel and equipment.

FINE—A few issues back I predicted tha the trend would be toward increasing pena ties for that small group of show-off aviato who unnecessarily jeopardized the lives an safety of earth-bound inhabitants. An exampl



of this was broadcast recently over the radi A Los Angeles court sentenced one Dilbe to six months in the county jail for low-al tude flying.

TAXI TROUBLES—As Dilbert w returning to the hangar via the taxi stri

He was aware there was another pla taxiing ahead of him, but

He assumed that it would continue at constant speed, therefore

He failed to note when the other pla stopped, so

He taxied into it and wiped them both ou

This type of fiasco happens so often y can almost sing it. And nine out of 10 of the occur because pilots either:

a. Taxi too fast.

b. Fail to make sufficient "S" turns to sure a clear runway.

c. Neglect to keep a sharp lookout on *ba* sides. All of these pilot errors add up to o thing—CARELESSNESS.

One angle of this mental disease mer special attention; that is this business of " suming" things. Aviators have no business assume anything.

Don't be a wishful thinker. Don't take a thing for granted. Check, re-check and d ble-check. Anyone in aviation who does oth wise just proves the old adage that there more of "them than there are horses."

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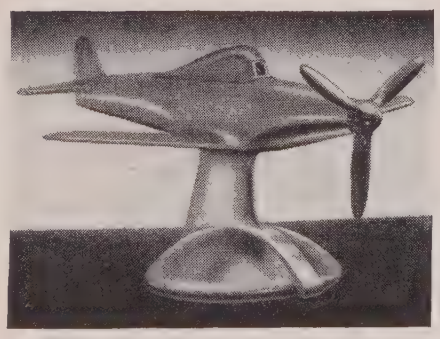

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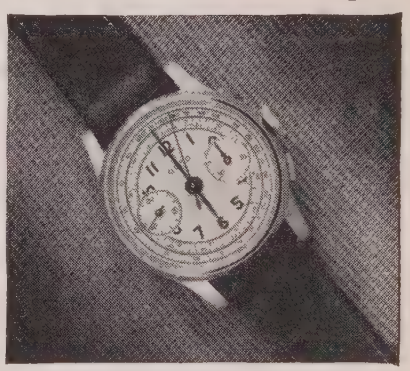

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Bass of Lost Bayou

(*Continued from page 42*)

that's big as all out doors and bass, *big bass* are waiting!"

To make a long story short, I finally won out and 30 minutes later he climbed dubiously into the plane. Before he could change his mind, I fastened the belt, checked over the tackle in the baggage compartment and started the engine. Quickly I taxied out to the runway, checked the mags and took off down the black-top.

Ten minutes later I set the ship down on the bar, taxied up to the steep bluff bank and together, we staked her down. We worked rapidly, making the lines secure. Then, shouldering our tackle, we struck out down the trail that led to the boat landing.

We found a boat and bailed it out to a state of reasonable seaworthiness. Without a word we flipped a coin to decide on positions in the craft and as usual, I lost. Grumbling somewhat, I picked up the paddle and eased away from the landing.

"What're you gonna' use?" grunted Johnnie. "Same old bottom-dredging bucktail that you've used all your life?"

"Right," I replied. "I'm after fish today and they'd be fools to hit a surface plug after all of this rain."

"I'll use one anyway," answered Johnnie, unperturbed. "Pull on up the bayou a piece and lemme get to work."

I followed instructions, watching with interest as he tied on a surface plug in red and white. The water was smooth as glass. Taking advantage of the stillness, I rigged my rod. Fumbling through the contents of my box, I unearthed my old stand-by, the conventional weighted bucktail in black and white. This bait carries spinner-equipped arms and down through the years I have found it usually effective. As an afterthought I pinned on a trailing strip of pork rind. Now satisfied with its appearance, I made an experimental cast between the butts of two huge cypress. Slowly I reeled it in watching with pleasure as it wriggled its way through the vegetation, spinners flashing and pork rind crawling.

From his seat in the bow, Johnnie worked the shoreline patiently. The lure that he used did present an enticing appearance and for a while, I almost forgot my fishing in watching its surface antics. Johnnie is a graduate of the "pop fishing" school and the things that he does with a surface lure are a pleasure to behold. For a quarter of an hour, he fished without result and I became so interested in watching his desperate tricks, that I missed a rise completely! My cast had been made rather negligently and as I slowly brought in the bait, a bass left his lair in a bed of cypress knees, and almost took the rod from my hands. Desperately I attempted to set the hook, but in my haste, I fumbled with the reel handles, allowing the fish to take too much slack. With one mad shake he threw the hook, and the rod snapped back with a sickening swish. Disgusted, I reeled in the lure, looked it over carefully and repeated the cast.

Ten minutes later, another fish took my offering as I snaked the bait through a bed of water hyacinth. This time I was ready and as he sucked in the wad of hair and pork rind, I socked the hook home. Down down, he bored, plumbing the depths of the pool, but my luck held good and I worked him into open water. Around the end of the boat he charged, traveling deeply but at the end of his run, he slashed to the surface and spent himself in a savage leap. I tired him down quickly and led him finally to Johnnie's outstretched hand.

"Luck," he muttered as he lifted him aboard. "Pure, unadulterated luck!"

Ignoring his words, I strung the fish and went back to work, allowing the bait to sink deeply and bringing it in in erratic jerks. Down through the years I have found this method most effective, particularly so in high or slightly discolored water. Bass, especially *large* bass, are often logy and it pays to give them plenty of time. Quite often a fish will ignore a lure entirely if it is rushed back to the boat and it will usually pay to not only fish slowly, but to repeat your casts to spots that seem particularly "fishy." This "repeat casting" is almost a prime requisite when concentrating on larger than average fish.

Fifty yards further along, I raised another fish. From between two fallen logs he charged the bait but missed the hook. From experience, I was almost certain that he had not felt the barb and with this in mind, I repeated the cast, hoping to goad him into striking again. For fully five minutes I worked the spot, dropping the bait over and over in the area in which he had risen. Then, finally, just as I was about to give up, he

(*Continued on page 66*)

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GAS TURBINES AND JET PROPULSION FOR AIRCRAFT, by G. Geoffrey Smith, M.B.E. This is the latest edition of a volume published in England in 1942 which has since become a classic on the subject. This Fourth Edition (Second American Edition) is greatly improved and enlarged, with a total of 256 pages, including 21 chapters, many photos and illustrations and a useful Index. General principles, metallurgy, British, American and German gas turbines, maintenance, application to flying wing designs, guided missiles, etc., are covered in simple language, technically accurate. Price: $5.00

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— June, 1947, issue —

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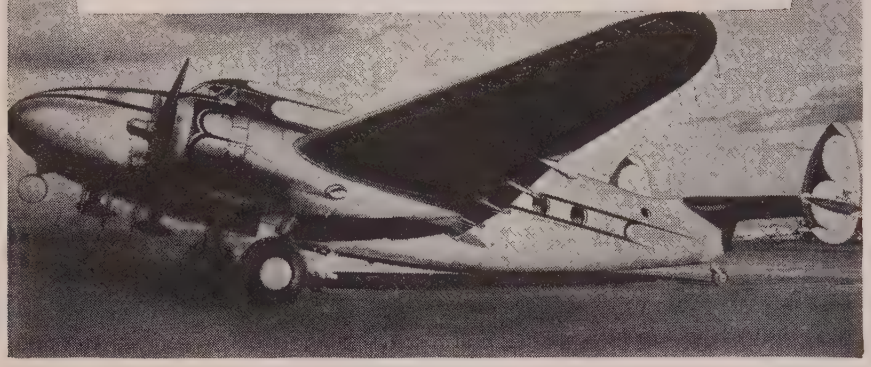
(NEW JERSEY)

equips Beechcraft and Lockheed Transports with Irvin Custom-Built Chair Chutes



THE Standard Oil Company (New Jersey) is another in the growing list of well-known plane owners using Irvin Custom-Built Chair Chutes. This new kind of chute not only makes flying decidedly safer, it has many other advantages as well. Chair Chutes are built into your plane . . . fitted into the back of each chair. You don't have to "remember" them . . ."wear" them . . . carry them about . . . or find a place to store them. They're always in your plane . . . in the back of each seat . . . instantly available in an emergency. Irvin Custom-Built Chair Chutes can now be had for all types of planes . . . large or small. They're completely illustrated and described in our Chair Chute circular. Write for a copy today.

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Bass of Lost Bayou

(Continued from page 64)

took it again! This time he struck savagely the impetus of his charge hooking him tho oughly. Quickly he reversed his field, slash ing through the matted vegetation and leav ing a trial of debris to mark his passage Tight-lipped I played him, giving line onl when absolutely necessary and after an eter nity, it seemed, he drifted to the top, com pletely subdued. Hurriedly I snaked him in adding him to the string as Johnnie glowered

"There comes a time," I quoted, "whe discretion is the better part of valour! Wh don't you take off that stick of wood an go down where the fish live?"

"Shut up," snapped my companion.

Within three minutes, I hooked and lande another fish, smaller than the others but bass nevertheless. With a sheepish gri Johnnie removed the plug and substitute a mate to my bucktail lure.

"This reminds me a lot of seining," h grumbled, "but I'll be damned if I'll let yo catch all the fish, even if I do have to dredg for 'em!"

We drifted along, working the beds c cypress knees and the lanes that lay betwee areas of hyacinth and yonkapin. The wate was almost covered with the stuff but ou lures are excellent for this type of work. I an open pool, Johnnie raised a fish. Wit a grunt, he set the hook and, laying dow my rod, I backwatered rapidly in order tha he might work his quarry into open wate As I mentioned previously, Johnnie has h faults but at playing a fish, he is unsu passed. With clocklike regularity he snubbe every run and after a few thrilling minute he led him to the side of the boat. I scoope him in and watched with a smile as Johnn unpinned the hook.

In a grove of cypress, we each raised fish and while I lost mine at the top of leap, Johnnie evened the score by workin his in.

At the end of an hour, we had each boate another fish. Satisfied with our catch, w moved along toward the landing. Clou were piling up in the west and not carin to buck a rainstorm on the return trip, w bent heavily on paddles. Upon reaching th landing, we tied the boat securely, distri uted tackle and catch and struck out dow the trail that led to the sandbar.

We reached the plane well ahead of th rain and after stowing gear, we untied th lines and crawled into the cabin. Befo us, the river flowed peacefully onward an as I warmed the engine, we watched a m jestic old stern-wheeler bucking the curren

Johnnie sat tensely beside me as I too off across the hard-packed sand but as th ship became airborne, he relaxed in his sea lighted a cigarette and grinned that old, o fisherman's grin. "Well boy," I smiled as throttled back, "I reckon you'll listen wh I tell you how to catch bass from now o After all, those surface plugs aren't th only darned things that'll take a fish."

Johnnie remained silent for a momen watching the shifting scene beneath o wings. Carefully he flipped an ash from h smoke and then replied: "Guess you're righ much as I hate to admit it! You did *mo* than sell me on deep running baits thoug *Hell, man, you sold me on flying!*"

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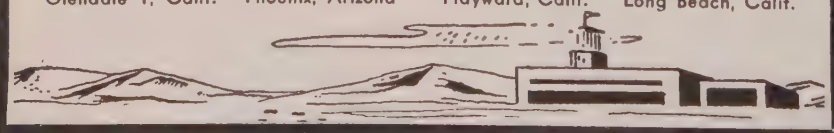

AIR-PARTS INC.

Sports News

(*Continued from page 43*)

Airmarking By Tub

A lost pilot straying over the town of Watervliet, Michigan, will breathe a sigh of relief as he reads the town's name airmarked on the roof of the Watervliet Fruit Exchange. If he's the curious type, he'll fly low for a closer look, and then, seeing something vaguely familiar, if he's *really* curious, he'll land to find out just what those words are written with. For the name "Watervliet" is spelled out with 200 slightly defective enameled washing machine tubs.

The rejected tubs were donated to the Michigan Wing of the Flying Farmers of Prairie Farmer Land by the 1900 Corp. of St. Joseph, Michigan. It took four men 45 minutes to place the tubs. The pitch and gravel roof acts as an excellent adhesive holding them in place. The white porcelain tubs on the black roof are visible from a height of several thousand feet, and really label the town a progressive community.—*Melba Klaus.*

Enameled tubs put Watervliet on Air Map

South America—Take Us Away!

Fishermen with time to spare—and what fisherman hasn't?—are discovering the waters of South America. The exploratory instincts of anglers are now uninhibited, thanks to Panagra which has opened up new air routes to many heretofore inaccessible areas.

A broad blue band of the Pacific stretching along the coast for hundreds of miles, past Ecuador, Peru, and Chile, offers some of the finest deep-sea fishing to be found anywhere in the world. Here great fighters, like the broadbill swordfish, the yellowfin tuna, the dolphin, and the albacore, allow the game fisherman all the sport his skill may demand.

For fresh-water fishing, anglers who have been there claim that Southern Chile can't be beat. Trout, thriving in mountain lakes and crystal clear streams fed by melting Andean snows, are so huge and plentiful that fishermen hooking fish less than 15 inches in length usually toss them back. A fair day's catch will be anywhere from 15 to 50 fish, ranging in size from 15 to 30 inches. In the lake region, the raging Tolten River boasts salmon weighing as much as 28 pounds.

And so that the non-fishing Little Woman need not feel left out the many glamorous metropoli are conveniently close, by air, to the fishing areas.

AIRPORT MARKER suggested by CAA for private flyer's use in flying the traffic pattern

New CAA Airport Marker

THE above airport marking is a test installation of a segmented circle. If every certified airport had this type marker for the personal flyer and his private plane, the pilot would have at his disposal up-to-the-minute information on wind, landing runways, number of runways, their direction, their length, condition of taxiing ground and direction of traffic pattern. While the information would differ with each airport, its conciseness and the uniformity would be an aid to the pilot—after studying it awhile its simplicity becomes apparent.

The windsock (left center) and the wind-T or fixed-T (in inside center also) give the pilot wind direction and correct runway to use for landing. (Note panels in line with the fixed-T. They indicate the runway which the pilots should use for landing and taking off.) The arrow on the outer circle indicates direction of the traffic pattern (to the left here). Length and orientation or direction of the runways is indicated by panels outside the circle. These panels also indicate runway length—1,000 feet per panel. This field has three runways of 2,000 feet, 3,000 feet (the landing runway on that date) and 4,000 feet respectively. Panels inside the circle serve to indicate the runway shoulders or ground adjacent to the runway are not safe for taxiing—no panels indicates plane may be safely taxied off runway at any point. Here, the 2,000- and 3,000-foot runways have ground unsuitable for taxiing.

Since the pilot will be interested in the runway with which the T is lined up, he will be able to note that runway's direction (apparently N-S), the direction of the wind (apparently from the southwest or from his right on his landing glide). He can count the panels outside the circle and determine the N-S runway's length is 3,000 feet and by noting the panel inside the circle (opposite the N-S runway panel markers) he can observe that the shoulders are not suitable for taxiing purposes. The arrow says traffic is to the left. He's ready to go in and land. All this at a glance.

Well, pilots, what do you think of this system? CAA would like to hear from you. Send us your "aye" or "nay" plus any constructive criticism. We'll submit SKYWAYS' pilot poll to the CAA. You'll help yourself by helping CAA.

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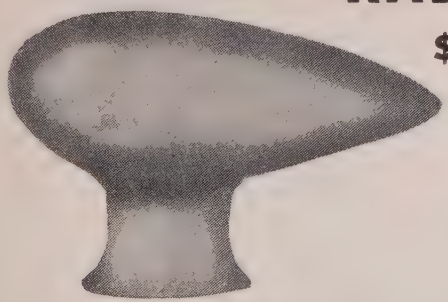

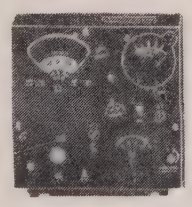

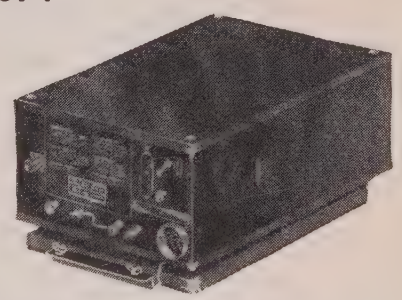

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1	Coupling MC-136	2Z3266
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Where to Fly

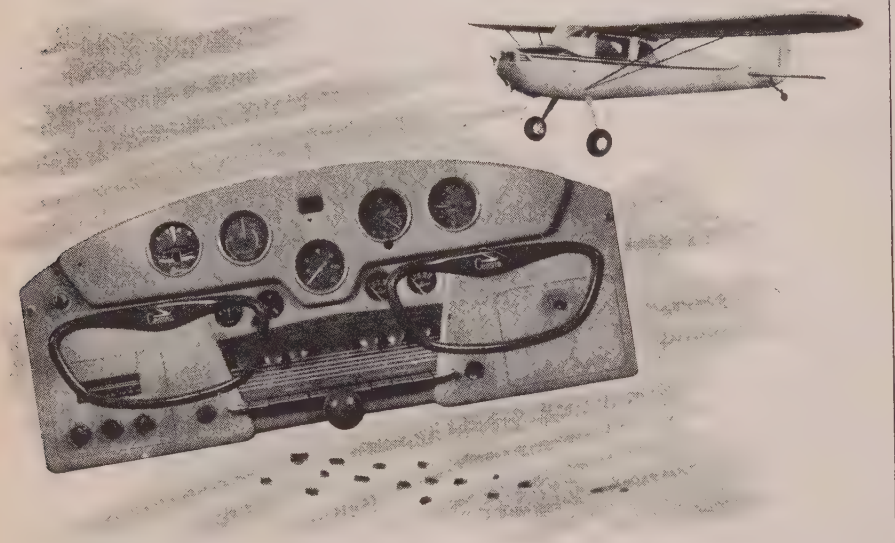
(*Continued from page 45*)

Eldon Airpark *(Cl. 1)—El. 919 feet. 2 turf strips, E/W, NNE/SSW. Wind sleeve, tee, field markers. Traffic pattern indicated by barbs on 100 foot airport circle. Tie-downs. 80 and 91 Octane fuel. Hangar, rest rooms, refreshments. Hotel and cabin accommodations at field. Two-way radio station. Located on NE edge of Eldon, Missouri. (Kansas City Chart)*

Gainesville Airport—*(Cl. 1)—El. 1000 feet; Turf strip, N/S. Wind sleeve, tie-downs. Oil and gas available. Refreshments. Taxi to town 2.5 miles E (Tulsa Chart)*

Versailles Municipal Airport *(Cl. 1)—El. 1030 feet. 3 turf strips, N/S, NE/SW, NW/SE. Boundary day markers, wind sleeve. Obstructions—power lines. N. NE, NW. 80 Octane gas, minor repair, 24-hour service. Hotel accommodations at field or in town 1 mile ENE. (Kansas City Chart)*

Editor's Note: *The flying sportsman would do well to write the Missouri State Department of Business and Administration, Division of Resources and Development, State Office Bld., Jefferson City, for a copy of the Missouri Airport Directory. This handy book offers the pilot complete details on all Missouri airports, plus information regarding the hunting and fishing that is available near the individual fields.*



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When It's Spring...

(*Continued from page 39*)

been asking their trout fishing friends.

Abercrombie and Fitch, one of New York's great sporting goods stores, says the essential outfit includes "a beginner's rod, a creel, fly reel, waders, landing net, level line, leaders and at least a dozen flies." All this will cost about $75.

Beginner's rods sell for $25 to $30, creels $8, a beginner's fly reel costs $6, waders $20, landing net $3 to $5, a level line $2.50, leaders $1 and flies between $3 and $4 per dozen.

Equipment-wise, the big news for the veteran trout fisherman this year is the appearance of spun glass rods. These rods, which come in two and three pieces, are constructed of spun glass on a balsa wood base and sell for $60. Bamboo rods, many made with bamboo from Tonkin, China, and reels and rubber waders are other items making their first appearance since before the war.

Every fisherman has his idea of a code, but veteran and novice alike would do well to study and remember the 15 points prepared for *SKYWAYS* readers by Charles H. Nehf, Field and Stream Editor of the Allentown (Pennsylvania) *Call-Chronicle* newspapers.

They are:

1. In approaching a trout stream always bear in mind that foreign bank vibrations and shadows scare down feeding trout.
2. Togs of a color which blends into the natural background of the stream are most helpful.
3. Regardless of years of experience on trout streams it is beneficial at times to act the part of a tenderfoot—many a stream secret is learned in this fashion.
4. Companionship and relaxation rather than a full creel are virtues to be sought.
5. Never measure a fish for size. If the critter is near club or State legal size it should be carefully released and returned to the water.
6. If you are a guest on a private stream for the first time, be sure you learn the club's restrictions.
7. Avoid a pool which is already being fished by another angler.
8. When you wade a stream be sure of your footing before you take the next step.
9. Govern the size of your take so that you may never be branded "A Fish Hog."
10. If you are fishing for a full creel sell all your equipment and purchase your fish at the market—it's much cheaper.
11. Never cast idly over a stream, study the water carefully and concentrate over likely spots.
12. Artificial lures should be given preference over natural baits.
13. When traveling any distance to fish new waters, one should pack clothing suitable for changing temperatures, bunk at recognized headquarters, and learn laws governing fishing in the territory.
14. Property rights are still a sacred American Institution.
15. No angler should feel at ease unless he is also taking an active part in some sportsman's organization which is interested in preserving the natural resources of the nation.

(*Continued on page 80*)

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Pilot's Report

(Continued from page 52)

one day and suggested a trade. The dealer offered to trade him straight across, in view of the Culver's $1,000 extra cost.

Bill gave him $250 in cash to boot, saying he wouldn't have traded straight across with a dog he didn't like. He was so anxious to get away from the Culver that he didn't even check his *Ercoupe's* gas tanks until he was half-way to Salt Lake and took a deep breath.

We rapped *Swift,* too, and there is a pitiful situation. You couldn't ask for a nicer pilot's airplane than the 125-hp *Swift,* but the 85-hp model just doesn't belong in the Utah section of the U. S.

All these incidentals seem to confuse the thread of this pilot's report on the L-5, but all factors bear on this same subject.

The L-5, burning 12 gallons of gas an hour, and a quart of oil without fail, to take two people 105 miles, looks like a bad operational bet alongside an 85-hp Luscombe that will carry the same load 115 miles on 5 gallons of gas and no oil. But these related factors must be considered for the potential specialized user of an L-5 to see what the ship will do where the others won't fly at all. The L-5 is a *temptatious* wildcat, if I can make a word out of thin air that fits.

You'd think twice before you hauled the nose of a $5,700 *Voyager* up in the air and plunked the ship down on an open stretch of rough ground 500 feet long, 5,200 feet above sea level. (You'd put a Bellanca or Beech *Bonanza* there only as an emergency.)

But the L-5 has that *temptatious* quality about it! Even you and I wouldn't worry—if we had a good reason to go into that field with a little wind to lend us a speck of confidence. We'd just land and let the gray hairs grow on some other pilot.

There's no pertinent detail on the routine. A cockpit check will put you wise in five minutes.

It says on the panel, use 30 degrees flaps for best take-off and full flaps for steepest landing approach and slowest landing speed.

As for the rest of it—we have a story.

Our friend, Charley Duncan, that lanky under-sheriff at Ely, Nevada, was about ready to take his private test the day we were there. He had just over the minimum number of hours. He had flown *Ercoupes* and *Cubs,* nothing else. He was trembling with excitement when Applegate loaded him into the front seat of the L-5 for a short flight.

Duncan took it off, flew his series of stalls, did some 720's and horsed around for half an hour. He came back to Yelland Field and made a perfect three-point landing. Meanwhile Applegate finished the installment of the serial he had been reading and never touched the controls.

When you take any other conventional-geared plane, or the *Navion* or *Bonanza,* put in an average student with less than 50 hours, hand him the keys to 190 horsepower for the first time, and he does *all* the flying all the way, and comes back saying, "I don't believe it—" then bring that airplane around for us to see and I'll meet you at the airport with a hi-jacked quart of Hudson's Bay scotch and my hat held humbly in my hand.

Briefly, what I'm trying to say is, an L-5 is a handy, all 'round airplane to fly.

Military

(*Continued from page 14*)

The *Theseus,* which continues Bristol's use of Greek mythological heroes' names (e.g., *Hercules, Centaurus* in the piston engine group), has a dry weight of 2,310 pounds, a shaft horsepower of 1,950 and 500 pounds of jet exhaust. It was especially designed for economical long-range commercial operation rather than high speed.

A forthcoming installation is in the second prototype of the huge Bristol 167 (Brabazon I) "Queen Elizabeth of the Air," with 16 of the *Theseus* turbines in 8 nacelles turning 8 dual-rotating propellers. First prototype is due to fly by next fall, with 8 *Centaurus* 2,400-hp piston engines. A third prototype will have 8 *Proteus* turboprops, nearly twice as powerful as the *Theseus.*

Westinghouse Turboprop Dropped

The development of the Westinghouse 25D aircraft gas turbine for propeller drive has recently been cancelled. This item has figured in American jet-engine round-up stories for a year or more, sometimes with a sketch, and often with the note that the project was well under way. Actually the 25D never got beyond the paper design stage, although it was reliably reported as the projected power plant of a Consolidated Vultee flying boat now under construction. Based on the 24C turbojet, output would have been slightly higher than the designed power output of General Electric's TG-100 (Army & Navy T-31), which has been flight-tested in the nose of the Convair XP-81, Ryan XF2R-1. The TG-100 has also been dropped, but an improved version is under development.

P & W Jet Production

In addition to its recently announced building program of aircraft gas turbine research and testing facilities extending over the next two years, Pratt & Whitney is taking over production of the Westinghouse-developed turbojets, under Navy contracts. The production model of the 19B is already being turned out for the McDonnell FD-1 *Phantom.* This 19XB has 1,600 pounds thrust, equal to 2,200 hp at 500 mph, weighs only 710 pounds. The larger model, the 24C, will soon be coming off the line. This well-designed turbojet is the powerplant of the Chance Vought XF6U-1 *Pirate,* the McDonnell XF2D-1, and several other Navy and Air Force X-fighters.

Allison Off Pistons

Allison Division of General Motors has decided to discontinue research and development of conventional piston engines and go all out for aircraft gas turbines. Present projects include production of the General Electric J-33 (radial-flow) and J-35 (axial-flow) turbojets (now totaling about 100 units per month), and development of a superior version of the J-33 and several other turbojets and turboprops.

Souped-up Nene

Rolls-Royce engineers have test run the *Nene* for 130 hours at 5,500 pounds of thrust, and with water-methanol injection have brought the take-off rating to 5,750 pounds.

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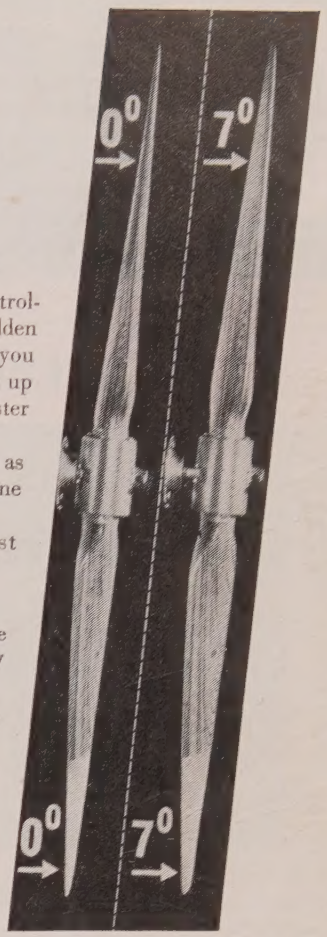

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When It's Spring...

(Continued from page 70)

Within reach of the lightplane in the Eastern states are the excellent trout streams of New York and Pennsylvania, while Colorado's famed rivers are only a few hours' flight from most Western airports.

As is to be expected, the New York streams are usually crowded. An angler must often cast with care—there are times when a mistake might bring gibes from a dozen onlookers.

Neversink, Willowemoc and Esopus are names to remember in New York's Catskill region while in Pennsylvania no stream offers any finer fishing than Brodhead's Creek in the Eastern part of the State.

The sport and beauty of Brodhead's Creek has been enjoyed by America's "Who's Who" from the time of Joseph Jefferson and Dr. Henry Van Dyke. Each year it draws many of the nation's industrial leaders who find in the sport there a chance for pleasant relaxation as well as a good catch.

The answer to most fishing dreams is Fisherman's Paradise operated by the Pennsylvania State Fish Commission on Spring Creek, near Bellefonte. This project is stocked with nothing but big trout and the largest catch, registered last year, was a lunker 30½ inches in length and 17 pounds in weight.

In Colorado the South and North Platte, Bear Creek, Big Thompson, the Colorado and the Gunnison are tops. Rainbow and brown trout weighing 9 to 13 pounds are no exception in these streams.

Trout fishing is a sport to test the mettle of man. It brings him into closer contact with nature, it brushes away his cares and worries and adds to his joys.

It is a sport for young and old, more exciting and interesting every day of the season. It brings out the good in man.

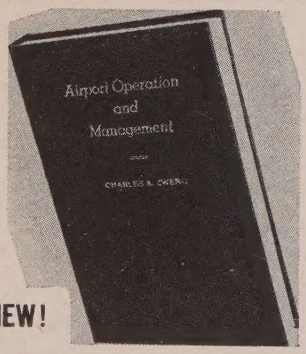
And, best of all, as a wise man wrote long ago:

"Allah does not deduct from the allotted time of man the hours spent in fishing."

PICTURE CREDITS

COVER—Fairchild Aircraft's latest contribution to the lightplane field is this Fairchild F-47, just now successfully completing its flight tests. A low-wing four-place plane with retractable landing gear, the F-47 is styled throughout along automobile lines. Photos and details will be released soon.

Following list gives source of SKYWAYS' pictures 14—NORTH AMERICAN; 18, 19, 20, 21, 22, 23—DON DOWNIE; 24, 25—WESTERN WAYS BY ROSS MADDEN, AND HERBERT PAUSTIAN; 28, 29, 30, 31—BOB ARENTZ; 32, 33—BURCERT BROTHERS, ROBERTSON AND FRESH; 34—EDO AIRCRAFT, LOCKHEED; 35—HANS GROENHOFF; 36, 37—EWING GALLOWAY, GEORGE PLACEK, HANS GROENHOFF, HARRIETT ARNOLD, AYCOCK BROWN; 38—AYCOCK BROWN; 39—LESLIE B. CARLTON; 40, 41, 42—MABRY ANDERSON; 43—NORTHERN AIRWAYS; 52—MARTIN & KELMAN, CONSOLIDATED VULTEE, AMERICAN AIRLINES; 60—WACO, ACME, A. U. SCHMIDT, MARTIN & KELMAN; 68—FLYING FARMERS OF PRAIRIE FARMER LAND; 69—CAA; 80—MARTIN & KELMAN.



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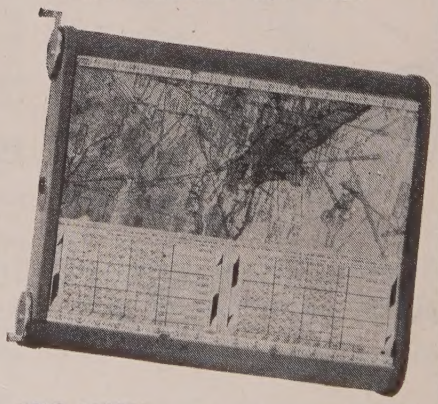

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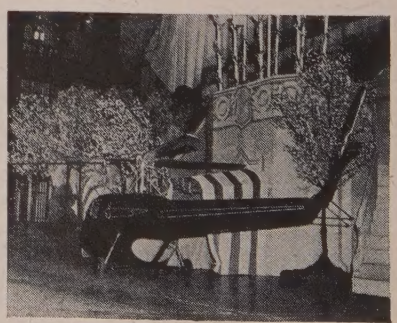
S-52 Makes Debut

The Sikorsky S-52 helicopter recently won a new role as one of the first—if not *the* first—rotor-wing craft to be featured in a stage performance. The new S-52 made its debut on Easter program of New York's fabulous Radio City Music Hall.